

**BOOK OF RULES
OF THE
BALTIMORE AND OHIO
SYSTEM.**

No. **33486**

THIS BOOK

is the property of

THE BALTIMORE & OHIO RAILROAD SYSTEM

and is loaned to

Name	Employed as

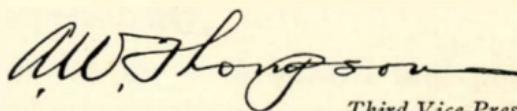
who hereby agrees to return it to the proper officer when called for, or upon leaving the service.

INDEX.

	PAGE
Order putting rules into effect.....	3
General notice.....	5
General rules.....	6
Definitions.....	7
Train rules.....	10
Timetables.....	12
Signal rules.....	14
Train signals.....	19
Superiority of trains.....	26
Movement of trains.....	27
Movement of trains with the current of traffic on double track by means of block signals.....	40
Movement of trains against the current of traffic on double track by means of block signals.....	41
Rules for three and four tracks.....	42
Rules for movement by train orders.....	44
Forms of train orders.....	54
Diagrams of hand, flag and lamp signals.....	73
Diagrams of train signals.....	83
Block signal, interlocking and telephone rules.....	98
Definitions.....	98
Manual block system.....	99
Controlled manual block system.....	121
Automatic block system.....	125
Interlocking rules, definitions.....	129
Telephone rules.....	142
General regulations for employes.....	147
Additional safety rules.....	179

The rules herein set forth govern the railroads operated by The Baltimore & Ohio System, and take effect January 1st, 1913, superseding all previous rules and instructions inconsistent therewith.

Special instructions may be issued by proper authority.

A handwritten signature in cursive ink, appearing to read "A.W. Longson".

Third Vice-President.



GENERAL NOTICE.

To enter or remain in the service is an assurance of willingness to obey the rules.

Obedience to the rules is essential to the safety of passengers and employes, and to the protection of property.

The service demands the faithful, intelligent and courteous discharge of duty.

To obtain promotion, capacity must be shown for greater responsibility.

Railroad service involves hazard and persons accepting employment therein assume its risks.

GENERAL RULES.

- A. Employes whose duties are prescribed by these rules, must provide themselves with copies.
- B. Employes must be conversant with and obey the rules and special instructions. If in doubt as to their meaning they must apply to proper authority for an explanation.
- C. Employes must pass the required examinations.
- D. Persons employed in any service on trains are subject to the rules and special instructions.
- E. Employes must render every assistance in their power in carrying out the rules and special instructions.
- F. Any violation of the rules or special instructions must be reported.
- G. The use of intoxicants by employes subject to call is prohibited. Their use by any employe, or the frequenting of places where they are sold, is sufficient cause for dismissal.
- H. The use of tobacco by employes when on duty in or about passenger stations, or in passenger cars, is prohibited.
- J. Employes on duty must wear the prescribed badge and uniform and be neat in appearance.

K. Persons authorized to transact business at stations or on trains, must be orderly and avoid annoyance to patrons.

L. In case of danger to the Company's property employes must unite to protect it.

M. Accidents, detention of trains, failure in the supply of water or fuel, or defects in the track or bridges must be promptly reported by telegraph to the Superintendent.

DEFINITIONS.

ENGINE—A locomotive propelled by any form of energy.

TRAIN—An engine, or more than one engine coupled, with or without cars, displaying markers.

REGULAR TRAIN—A train authorized by a time-table schedule.

SECTION—One of two or more trains, running on the same schedule displaying signals or for which signals are displayed.

EXTRA TRAIN—A train not authorized by a time-table schedule. It may be designated as:

EXTRA—For any extra train, except work extra.

WORK EXTRA—For work train extra.

SUPERIOR TRAIN—A train having precedence over another train.

TRAIN OF SUPERIOR RIGHT—A train given precedence by train order.

TRAIN OF SUPERIOR CLASS—A train given precedence by time-table.

TRAIN OF SUPERIOR DIRECTION—A train given precedence in the direction specified in the time-table as between trains of the same class.*

TIME-TABLE—The authority for the movement of regular trains subject to the rules. It contains the classified schedules of trains with special instructions relating thereto.

SCHEDULE—That part of a time-table which prescribes class, direction, number and movement for a regular train.

MAIN TRACK—A track extending through yards and between stations, upon which trains are operated by time-table or train order, or the use of which is controlled by block signals.

SINGLE TRACK—A main track upon which trains are operated in both directions.

DOUBLE TRACK—Two main tracks, upon one of which the current of traffic is in a specified direction, and upon the other in the opposite direction.

THREE (OR MORE) TRACKS—Three (or more) main tracks, upon any of which the current of traffic may be in either specified direction.

* Superiority by direction is limited to single track.

CURRENT OF TRAFFIC—The movement of trains on a main track, in one direction, specified by the rules.

STATION—A place designated on the time-table by name, at which a train may stop for traffic; or to enter or leave the main track; or from which fixed signals are operated.

SIDING—A track auxiliary to the main track for meeting or passing trains, limited to the distance between two adjoining telegraph stations.

FIXED SIGNAL—A signal of fixed location indicating a condition affecting the movement of a train.*

YARD—A system of tracks within defined limits provided for the making up of trains, storing of cars and other purposes, over which movements not authorized by time-table, or by train order, may be made, subject to prescribed signals and regulations.

YARD ENGINE—An engine assigned to yard service and working within yard limits.

PILOT—A person assigned to a train when the engineer or conductor, or both, are not fully acquainted with the physical characteristics,

* The definition of a "Fixed Signal" covers such signals as slow boards, stop boards, yard limits, switch, train order, block, interlocking, semaphore, disc, ball or other means for indicating stop, caution or proceed.

or running rules of the road, or portion of the road, over which the train is to be moved.

DIVISION—That portion of a railway assigned to the supervision of a Division Superintendent.

SUB-DIVISION—A part of a division so designated on the time-table.

TRAIN RULES.

1. Unless otherwise indicated on the time-table, trains East of the Ohio River and East of New Castle Junction are governed by Eastern Standard Time. Trains West of the Ohio River and West of New Castle Junction, inclusive, are governed by Central Standard Time. Standard Time, obtained from Washington Observatory, will be telegraphed to all points from designated offices at twelve o'clock noon, Eastern, and eleven o'clock A. M. Central Time, daily.

2. Watches that have been examined and certified to by a designated inspector must be used by conductors, locomotive engineers and flagmen.

Watches must be inspected semi-annually, in the months of January and July, and the certificate in prescribed form must be renewed and filed with the Superintendent.

3. Watches of conductors and locomotive engineers must be compared before starting on each trip, with a clock designated as a Standard Clock, as located upon the Time-table. The

time when watches are compared must be registered on the prescribed form.

Conductors and locomotive engineers whose duties prevent them from having access to a Standard Clock must compare daily with and regulate their watches by those of conductors and locomotive engineers who have standard time and have registered as provided.

Conductors will compare time with locomotive engineers before starting on a run and with flagmen and brakemen as soon thereafter as practicable. Locomotive engineers will compare with firemen.

EMPLOYEE'S CARD CERTIFICATE.

191.....

This is to certify, that the Watch of
..... Employed as.....

..... on the Division
Movement No..... Brand

..... has been inspected; is up to
standard of excellence required by The
Baltimore & Ohio System, and is perform-
ing as per record on the back of this
certificate.

Repaired by.....

Date..... 191..

Work done, condition, etc.....

..... Watch Inspector.

Address.....

Trainmasters, Assistant Trainmasters, Locomotive Engineers, Firemen, Conductors, Flagmen, Brakemen, Yardmasters, Assistant Yardmasters, Road Foremen of Engines, Assistant Road Foremen of Engines, Section Foremen, Bridge and Extra-Gang Foremen, and such other employes as may from time to time be designated, will receive orders for watch inspection (Form C. T. 90A) from the Superintendent semi-annually in January and July, which must be delivered promptly to the Local Watch Inspector, from whom he will receive an "Employe's Card Certificate" (Form C. T. 90B). These certificates must be carefully preserved and presented semi-monthly to the Local Watch Inspector, on which he is to enter the record of watch comparisons.

Time-Tables.

4. Each time-table, from the moment it takes effect, supersedes the preceding time-table, and its schedules take effect on any division (or sub-division) at the leaving time at their initial stations on such division (or sub-division). But when a schedule of a preceding time-table corresponds in number, class, day of leaving, direction and initial and terminal stations with

a schedule of the new time-table, a train authorized by the preceding time-table will retain its train orders and assume the schedule of the corresponding number of the new time-table.

Schedules on each division (or sub-division) date from their initial stations on such division (or sub-division).

Not more than one schedule of the same number and day shall be in effect on any division (or sub-division).

5. Not more than two times are given for a train at any station; where one is given it is, unless otherwise indicated, the leaving time; where two, they are the arriving and the leaving time.

Unless otherwise indicated, the time applies to the switch where an inferior train enters the siding; where there is no siding it applies to the place from which fixed signals are operated; where there is neither siding nor fixed signal, it applies to the place where traffic is received or discharged.

Schedule meeting or passing stations are indicated by figures in full-faced type.

Both the arriving and leaving time of a train are in full-faced type when both are meeting or

passing times, or when one or more trains are to meet or pass it between those times.

When trains are to be met or passed at a siding extending between two adjoining stations, the time at each end of the siding will be shown in full-faced type.

Where there are one or more trains to meet or pass a train between two times, or more than one train to meet a train at any station, the numbers of the trains to be met or passed will be shown in small type adjoining the full-faced type.

6. The following signs when placed before the figures of the schedule indicate:

“s”—Regular stop.

“f”—Flag stop to receive or discharge passengers or freight.

Signal Rules.

7. Employes whose duties may require them to give signals, must provide themselves with the proper appliances, keep them in good order and ready for immediate use.

8. Flags of the prescribed color must be used by day, and lights of the prescribed color by night.

9. Night signals must be displayed from sunset to sunrise. When weather or other conditions obscure day signals, night signals must be used in addition.

VISIBLE SIGNALS.

10.

Color Signals.

*COLOR.	INDICATION.
(a) Red.	Stop.
(b) White.	Proceed, and for other uses prescribed by the rules.
(c) Green.	Proceed with caution, and for other uses prescribed by the rules.
(d) Green and white.	Flag stop. See Rule 28.
(e) Blue.	See Rule 26.

* Where special instructions provide, Yellow indicates Caution; Green indicates Clear.

11. A fusee on or near the track, burning red, indicates that the approaching train must be stopped before passing it, and then proceed with caution, looking out for a stop signal until the track is seen to be clear, or is so indicated.

Lighted fusees must not be thrown where they are liable to start a fire.

12. Hand, Flag and Lamp Signals.

MANNER OF USING.	INDICATION.
(a) Swung across the track.*	Stop.
(b) Raised and lowered vertically.†	Proceed.
(c) Swung vertically in a circle at half-arm's length across the track, when the train is standing.‡	Back.
(d) Swung vertically in a circle at arm's length across the track when the train is running.§	Train has parted.
(e) Swung horizontally above the head, when the train is standing.¶	Apply air brakes.
(f) Held at arm's length above the head when the train is standing.○	Release air brakes.
(g) Held horizontally at arm's length.♯	Reduce speed.

* Illustrated by diagram on page 75. ¶ Illustrated by diagram on page 79.

† Illustrated by diagram on page 76. ○ Illustrated by diagram on page 80.

‡ Illustrated by diagram on page 77. ♯ Illustrated by diagram on page 81.

§ Illustrated by diagram on page 78.

13. Any object waved violently by any one on or near the track is a signal to stop.

AUDIBLE SIGNALS.

14. Engine Whistle Signals.

NOTE—The signals prescribed are illustrated by “o” for short sounds, “—” for longer sounds. The sound of the whistle should be distinct, with intensity and duration proportionate to the distance signal is to be conveyed.

SOUND.	INDICATION.
(a) o	Stop. Apply brakes.
(b) — —	Release brakes.
(c) — o o o	Flagman go back and protect rear of train.

SOUND.	INDICATION.
(d) — — — —	Flagman return from West or South.
(e) — — — — o	Flagman return from East or North.
(f) — — — — o o	Flagman return from West or South on Branches.
(g) — — — — o o	Flagman return from East or North on Branches.
(h) — — —	When running, train parted; to be repeated until answered by the signal prescribed by Rule 12 (d). Answer to 12 (d).
(j) o o	Answer to any signal not otherwise provided for.
(k) o o o	When train is standing, back. Answer to 12 (c) and 16 (c). When train is running, answer to 16 (d) and 16 (j).
(l) o o o o	Call for signals.
(m) — o o	To call the attention of yard engines, extra trains or trains of the same or inferior class or inferior right, to signals displayed for a following section.
(n) — — o o	Approaching public crossings at grade.
(p) — — —	Approaching stations, junctions and railroad crossings at grade.
(q) o —	Order signal has been changed to proceed.
(r) o o o o oo	Air brake sticking.
(s) o o —	To call the attention of trains other than first class to scheduled or train order meeting points, or points where they are instructed to report for orders.

A succession of short sounds of the whistle is an alarm for persons or live stock on the track.

15. The explosion of one torpedo, or two not more than 200 feet apart, is a signal to reduce speed and lookout for stop signal or track obstruction. The use of two is required. Trains must be kept under control until clear track is indicated.

15 (A). Conductors of passenger trains must give a signal by air whistle of one (1) short and one (1) long blast approaching all meeting points.* Locomotive engineers must acknowledge by giving three (3) short blasts of the whistle.

Locomotive engineers of all other trains must give two (2) short and one (1) long blast of the whistle approaching scheduled or train order meeting points, and points where they are ordered to report for orders.† This signal must be given one mile distant from the point. Should locomotive engineers fail to give this signal, conductors and brakemen will give the stop hand or lamp signal, and must make every possible effort to bring the train to a stop before passing that point.

Failure to give these signals will not relieve conductors or locomotive engineers of responsibility.

* See Rule 16 (j).

† See Rule 14 (s).

The operation under the first paragraph of Rule 15 (A) should be as follows:

When a passenger train is approaching, and is one mile distant from, a point at which its movement is affected by a train order, or it is scheduled to meet a train of the same class, the conductor must signal the locomotive engineer and be answered by him in accordance with Rule 15 (A). Failing to receive the answer from the locomotive engineer, every effort must be made to stop the train.

18. Yard engines will display the headlight to the front and rear by night. When not provided with a headlight at the rear two white lights must be displayed. Yard engines will not display markers.

19. The following signals will be displayed, one on each side of the rear of every train, as markers, to indicate the rear of the train:

On single track—

By day: green flags.

By night: green lights to the front and side and red lights to the rear; except when the train is clear of the main track, when green lights must be displayed to the front, side and rear.

On double track—

By day: green flags.

By night: green lights to the front and side, and red lights to the rear; except when the train is turned out against the current of traffic, when green lights must be displayed to the front and side, a green light to the rear on the side next the main track on which the current of traffic is in the direction the train is moving, and a red light to the rear on the opposite side. When clear of the main track: green lights to the front, side and rear.*

* Illustrated by diagrams on pages 86, 88, 90, 91, 94.

19 (A). On passenger trains marker lamps as day markers will indicate the same as flags. During snow and sleet storms by day, the lights in marker lamps should be kept burning to prevent snow and ice from obscuring them.*

20. All sections except the last, will display two green flags, and in addition, two green lights by night, in the places provided for that purpose on the front of the engine.†

21. Extra trains will display two white flags, and, in addition, two white lights by night, in the places provided for that purpose on the front of the engine.‡

22. When two or more engines are coupled, the leading engine only shall display the signals as prescribed by Rules 20 and 21, except where helping engines become the leading engines, when signals will also be displayed on the helping engines.

Where the helper is attached to the rear of the train, the markers are to be displayed on the rear of the helper and not on the caboose or rear car of the train, which it is assisting.

23. One flag or light displayed where in Rules 19, 20 and 21 two are prescribed, will

* Illustrated by diagram on page 89.

† Illustrated by diagrams on pages 87, 88.

‡ Illustrated by diagrams on pages 85, 86.

indicate the same as two; but the proper display of all train signals is required.

23 (A). When trains are run under signal indication, classification signals will not be displayed.

24. When cars are pushed by an engine (except when shifting or making up trains in yards), a white light must be displayed on the front of the leading car by night.*

25. Each car on a passenger train must be connected with the engine by a communicating signal appliance.

26. A blue flag by day and a blue light by night displayed at one or both ends of an engine, car or train, indicates that workmen are under or about it. When thus protected it must not be coupled to or moved.

Workmen will display the blue signals and the same workmen are alone authorized to remove them. Other cars must not be placed on the same track so as to intercept the view of the blue signals, without first notifying the workmen.

USE OF SIGNALS.

27. A signal imperfectly displayed, or the absence of a signal at a place where a signal is

* Illustrations by diagrams on page 93.

usually shown, must be regarded as a stop signal, and the fact reported to the Superintendent.

28. A combined green and white signal is to be used to stop a train only at the flag stations indicated on its schedule. When it is necessary to stop a train at a point that is not a flag station on its schedule, a red signal must be used.

29. When a signal (except a fixed signal) is given to stop a train, it must, unless otherwise provided, be acknowledged as prescribed by Rule 14 (j).

30. The engine bell must be rung when an engine is about to move.

31. The engine bell must be rung on approaching every public road crossing at grade, and until it is passed; and the whistle must be sounded at all whistling posts.

32. The unnecessary use of either the whistle or the bell is prohibited. They will be used only as prescribed by rule or law, or to prevent accident.

33. Watchmen stationed at public road and street crossings must use red signals only when necessary to stop trains.

34. Trains must not pass the signal at open telegraph stations, unless it is seen to change from "Stop" to "Proceed." The locomotive

engineer will give one long blast of the whistle when in sight of the signal, and if no orders for the train, and it is proper for the train to advance, the signalman will change the signal to "Proceed" and the locomotive engineer, observing the change, will answer with one short and one long blast of the whistle. The signalman will display the "Proceed" signal until the rear car of the train has passed it 200 feet, when he will again display the "Stop" signal.

34 (A). Unless the locomotive engineer observes the signal change from "Stop" to "Proceed," he will stop his train and the conductor will report to the telegraph office for orders.

Where interlocking signals are used also as block signals, or where automatic signals govern, this rule does not apply.

35. When a signalman has orders for a train, the "Proceed" signal shall not be given to any other train, unless by special instructions from the Superintendent.

For conveying such information, signal "15" and train number will be given.

The signal "15" signifies "You will give 'Proceed' signal to _____."

The signalman will, in each case, fill out a slip, properly "timed," showing "15," "train number" and the "Superintendent's initials" and send it

with his train order copies to the Superintendent.

The signal "15" will be used for first class trains only.

36. When a signalman has orders for a train, the signal will not be changed for any other train (except as per Rule 35). If no orders, the signalman will hand to the conductor and locomotive engineer a Form A, Part (A), Line 3; the train may then proceed, provided it has such right under the rules.

37. One long and two short blasts of the whistle, is an indication that a train is carrying signals and must be given at both the front and rear end of trains affected thereby, and be answered by two short blasts of the whistle by such trains.* If not answered, the passing train must be stopped, the reason for not answering obtained and a report made by telegraph to the Superintendent from the first open telegraph office at which the train giving the signal stops.

38. When trains displaying signals meet, each will give the proper whistle signal and answer.

39. When from a standing train, a signal for "displaying signals" is sounded, and no response is received from a passing train, the conductor and locomotive engineer of standing train will

* See Rules 14 (m), 14 (j).

make every effort to stop the passing train and see that displayed signals are observed, provided they in any way affect the superiority of the passing train.

40. Conductors, locomotive engineers and trainmen are required to give close attention to signals displayed by other trains and their significance, whether their attention is called to them or not. If in doubt, a train will not leave a station or siding until the conductor and the locomotive engineer agree as to what signals, if any, were displayed by opposing or passing trains, and will report failure to call attention to them.

41. Signals to start or stop passenger trains will be given by the air whistle or signal-bell on the engine; operated from the rear of the train in starting at terminals or where the makeup of the train is changed, and from the baggage car at intermediate stations upon proper signal from the conductor.

SUPERIORITY OF TRAINS.

71. A train is superior to another train by right, class or direction.

Right is conferred by train order; class and direction by time-table.

Right is superior to class or direction.

Direction is superior as between trains of the same class.

72. Trains of the first class are superior to those of the second; trains of the second class are superior to those of the third; and so on.

Trains in the direction specified by the time-table are superior to trains of the same class in the opposite direction.

73. Extra trains are inferior to regular trains.

MOVEMENT OF TRAINS.

82. Time-table schedules, unless fulfilled, are in effect for twelve hours after their time at each station.

Regular trains twelve hours behind either their schedule arriving or leaving time at any station, lose both right and schedule and can thereafter proceed only as authorized by train order.

83. A train must not leave its initial station on any division (or sub-division), or a junction, or pass from double to single track, until it has been ascertained whether all trains due, which are superior, or of the same class, have arrived or left.

83 (A). Train register books showing the arrival and departure of trains, will be kept at stations designated on the time-table, and all conductors, and engineers of engines without conductors, before leaving a registering station must enter therein all information required by the form.

Conductors and locomotive engineers of all trains must, unless otherwise provided, examine register books at such stations and obtain the information required by Rule 83.

83 (B). Bulletin boards will be provided at stations designated on the time-table and all train and yard conductors and locomotive engineers are required to consult these boards before starting on a trip or commencing the daily work, and to sign for General Orders in the manner provided. They will be held responsible for compliance with General Orders and other instructions posted before their going on duty.

83 (C). Conductors of all trains will report at telegraph office at their respective initial stations for orders, and will not leave without receiving Form A.

83 (D). Trains may be registered by the signalman issuing Form A to conductor and locomotive engineer at such points as may be designated on the time-table, or by General Order, the issuance for each train, in every case, to be authorized by the train dispatcher.

When authorized by time-table, conductors will use Form C for registering at designated points.

84. A train must not start until the proper signal is given.

85. When a train of one schedule is on the time of another schedule of the same class, in the same direction, it will proceed on its own schedule, protecting by flag when necessary.

Trains of one schedule may pass trains of another schedule of the same class. Extras may pass and run ahead of extras.

86. An inferior train must clear the time of a superior train in the same direction, not less than five minutes; but must be clear at the time a first-class train, in the same direction, is due to leave the next station in the rear where time is shown.

87. An inferior train must keep out of the way of opposing superior trains, and failing to clear the main track by the time required by rule, must be protected as prescribed by Rule 99.

Extra trains must clear the time of regular trains five minutes, unless otherwise provided, and will be governed by train orders with respect to opposing extra trains.

88. At meeting points between trains of the same class, the inferior train must clear the main track before the leaving time of the superior train.

At meeting points between extra trains, the train in the inferior time-table direction must take the siding, unless otherwise provided.

Trains must pull into the siding when practicable; if necessary to back in, the train must first be protected as prescribed by Rule 99, unless otherwise provided.

89. At meeting points between trains of different classes, the inferior train must take the siding and clear the superior train at least five minutes, and must pull into the siding when practicable. If necessary to back in, the train must first be protected as prescribed by Rule 99, unless otherwise provided.

90. Trains must stop at schedule meeting or passing stations, if the train to be met or passed is of the same class, unless the switches are right and the track clear.

When the expected train of the same class is not found at the schedule meeting or passing station, the superior train must approach all sidings prepared to stop until the expected train is met or passed. Trains must stop clear of the switch used by the train to be met or passed in going on the siding.

90 (A). On passing sidings trains must be run under control, prepared to stop, unless the track is seen to be clear.

91. Unless some form of block signal is used, trains in the same direction must keep at least five minutes apart, except in closing up at stations.

92. A train must not arrive at a station in advance of its schedule arriving time, except as provided in Rules 88 and 89.

A train must not leave a station in advance of its schedule leaving time.

93. Yard limits will be indicated by yard limit boards.

Within these limits yard engines may occupy main tracks, clearing the time of passenger trains ten minutes, and protecting against all other trains.

Trains other than first-class must move within yard limits prepared to stop, unless the main track is seen or known to be clear.

94. A train which overtakes another train so disabled that it cannot proceed, will pass it, if practicable, and if necessary will assume the schedule and take the train orders of the disabled train, proceed to the next open telegraph office and there report to the Superintendent. The disabled train will assume the right or schedule and take the train orders of the last train with which it has exchanged, and will when able proceed to and report from the next open telegraph office.

When a train unable to proceed against the right or schedule of an opposing train, is overtaken between telegraph stations by an inferior train, or a train of the same class having right or schedule which permits it to proceed, the delayed train may, after proper consultation with the following train, precede it to the next telegraph station, where it must report to the Superintendent. When opposing trains are met under these circumstances, it must be fully explained to them by the leading train that the expected train is following.

95. Two or more sections may be run on the same schedule.

Each section has equal time-table authority.

A train must not display signals for a following section, without orders from the Superintendent.

96. When signals displayed for a section are taken down at any point on single track before that section arrives, the conductor will, if there be no other provision, arrange, in writing, with the operator, or if there be no operator, with the switch tender, or in the absence of both, with a flagman left there for that purpose, to notify all opposing trains of the same or inferior class leaving such point that the section for which the signals were displayed has not arrived.

97. Extra trains must not be run without orders from the Superintendent.

98. Trains must approach the end of double tracks, junctions, railroad crossings at grade, and drawbridges, prepared to stop unless the switches and signals are right and the track is clear. Where required by law, trains must stop.

99. When a train stops or is delayed, under circumstances in which it may be overtaken by another train, the flagman must go back immediately with stop signals a sufficient distance to insure full protection, and will there place two torpedoes on the rail on the locomotive engineer's side.

When recalled he may return, leaving the torpedoes as placed.

The front of a train must be protected in the same way when necessary by the head brakeman, and when he is not available, by the fireman.

When on other than single track trains are stopped unexpectedly or meet with accidents the nature or extent of which is unknown, flagmen must, without waiting to determine what tracks are obstructed, be sent out in both directions at once to protect the movement of trains on all tracks.

99 (A). Should a train be seen or heard approaching before the flagman has reached the required distance, he must, at once, place two torpedoes on the rail, and, if by night or during

foggy or stormy weather, display a burning red fusee, continuing in the direction of the approaching train.

99 (B). In locations protected by automatic signals and so designated on the time-table, the flagman must go back immediately with stop signals a sufficient distance to protect the train, or until he can plainly see that the signal not less than one-half a mile to the rear of the train displays stop, and must know that it continues to display stop while the train requires protection.

99 (C). Should the speed of a train be reduced and its rear thereby endangered, making it necessary to check a following train before a flagman can get off, a burning fusee shall be thrown off at intervals to insure safety.

99 (D). When work trains, trackmen or other employes, are performing work requiring flag protection, the flagmen will be furnished written instructions, which must be shown to the locomotive engineers of all trains flagged.

100. When the flagman goes back to protect the rear of the train, the next brakeman must take his place on the train. On passenger trains the baggageman must take the place of the brakeman when necessary.

When the flagman goes back to protect the rear of the train, and is left by the train, the

conductor will arrange to protect the train by some other train employe on the train, or himself.

100 (A). Flagmen must not be sent out to flag only certain trains, they must flag all trains.

101. If a train should part while in motion, trainmen must, if possible, prevent damage to the detached portions. The signals prescribed by Rules 12(d) and 14 (h) must be given, and the front portion of the train kept in motion until the detached portion is stopped, except that upon trains fully or partially equipped with the air brake, should the locomotive engineer feel the brakes go on suddenly, which is an indication that the train has broken in two, he must immediately shut off steam to allow the rear portion to close in against the engine, and not attempt to pull away from the detached portion.

On double track, the front portion must give the train parted signal to trains running in the opposite direction. A train receiving this signal from a train on the opposite track must stop and then proceed with caution until the detached portion of the train has been passed.

The front portion will then go back, to recover the detached portion, running with caution and following a flagman. The detached portion must not be moved or passed until the front portion comes back.

102. When cars are pushed by an engine (except when shifting and making up trains in yards) a flagman must take a conspicuous position on the front of the leading car.

103. Messages, or orders, respecting the movement of trains or the condition of track or bridges must be in writing.

104. Switches must be left in proper position after having been used. Conductors are responsible for the position of the switches used by them and their trainmen, except where switch-tenders are stationed.

A switch must not be left open for a following train unless in charge of a trainman of such train.

Employes must keep away from stands of facing point switches while trains are approaching and passing and, when practicable and safe, must stand on the side of the track opposite the switch stand.

After a train enters a siding, or has crossed from one track to another to allow a train to pass, the pull-in switch and derail, or both switches of the crossover, must be set in normal position until the approaching train has passed.

105. Both conductors and locomotive engineers are responsible for the safety of their trains and, under conditions not provided for by

the rules, must take every precaution for their protection.

106. In all cases of doubt or uncertainty, the safe course must be taken and no risks run.

107. When a train without markers passes a telegraph office, the operator must notify the telegraph office on each side.

108. Unless automatic block signals are used, or other practice is authorized, a positive block will be maintained behind all passenger trains at all times, and in all places, except that when a passenger train passes a train at a non-telegraph siding, the train so passed will wait ten minutes after the departure of the passenger train, and may then proceed under control until the next telegraph station is reached, or it is ascertained that the block ahead is clear. "Under control" means running at such speed that it can be stopped by the locomotive engineer within his range of vision.

109. A train receiving a caution signal (except automatic block caution signal governed by automatic block Rule 501) must proceed until clear track is indicated to the locomotive engineer, at such a rate of speed as will permit of its being stopped by him within his range of vision.

This will not relieve train crews from protecting under Rule 99.

110. Where a train in transit is laid up on siding, it must be annulled by train order, the headlight extinguished and other signals removed. Other trains whose movement might be affected must be notified by train order that the siding or a certain portion of it, is blocked.

111. At all terminal stations, and at any point where change is made in train, air must be tested by locomotive engineer making application of brakes. Train crew or air brake inspectors will be properly stationed for noting and correcting defects.

Locomotive engineers of passenger trains leaving a terminal, or leaving any point where the make up of their train has been changed, after starting, will make a running test within one thousand feet by applying the air brakes sufficiently to know air is in good working order.

112. When trains cross over on double track, to let another train pass, both switches must remain in their normal position until the train is ready to cross, and must be set in the normal position as soon as the train has crossed, and be left in that position until the train is to be returned to the proper track.

113. Trainmen must ride out on train when descending grades where hand brakes are required,

through yards and approaching railroad crossings and junctions. When passing open telegraph offices, will pass signals from rear of train to be answered by the locomotive engineer with two short blasts of the whistle. Conductors will see that trainmen are properly placed.

114. Trains which should collect pouches from mail cranes will, when running on any other than their regular track, stop, if necessary, to exchange mail.

115. To take water or fuel engines will be detached from freight trains consisting of fifteen or more cars.

116. Where trains are run under signal indication on single track, and from any cause instructions cannot be obtained, trains may proceed only under protection of a flag.

117. A passenger train when run to represent a regular train will, unless otherwise directed, make the stops of the regular train they represent.

D-151. On double track, trains must keep to the right, unless otherwise provided.

D-152. When a train crosses over to or obstructs the other track, unless otherwise provided, it must first be protected as prescribed by Rule 99 in both directions.

A train must not cross over when a superior train is due, except to avoid delay to superior trains following.

In permitting trains to pass after crossing over, preference must be given to trains of the greatest importance.

D-153. Trains must use caution in passing a train receiving or discharging passengers at a station, and must not pass between it and the platform at which the passengers are being received or discharged where tracks are not protected by inter-track fences.

D-154. Locomotive engineers must observe trains on the opposite track, and if they are running too closely together, call attention to the fact.

RULES GOVERNING THE MOVEMENT OF TRAINS WITH THE CURRENT OF TRAFFIC ON DOUBLE TRACK BY MEANS OF BLOCK SIGNALS.

D-251. On portions of the road so specified on the time-table, trains will run with the current of traffic by block signals whose indications will supersede time-table superiority.

D-252. The movement of trains will be supervised by the Superintendent, who will issue instructions to signalmen when required.

D-253. A train having work to do which may detain it more than five minutes, must obtain permission from the signalman at the last station at which there is a siding before entering the block in which work is to be done. The signalman must obtain authority to give this permission from the Superintendent.

D-254. Except as affected by these rules, all Block Signal and Train Rules remain in force.

RULES GOVERNING THE MOVEMENT OF TRAINS AGAINST THE CURRENT OF TRAFFIC ON DOUBLE TRACK BY MEANS OF BLOCK SIGNALS.

D-261. On portions of the road so specified on the time-table, trains will run against the current of traffic by block signals, whose indications will supersede time-table superiority and will take the place of train orders.

D-262. The movement of trains will be supervised by the Superintendent, who will issue instructions to signalmen.

D-263. A train must not cross over, except as provided in Rule D-261, without authority from the Superintendent.

D-264. Except as affected by these rules, all Block Signal and Train Rules remain in force.

RULES FOR THREE AND FOUR TRACKS.

F-271. One of the main tracks will be designated as No. 1; additional tracks will be numbered therefrom.

F-272. The use of these tracks, both as to the class and the current of traffic, will be designated on the time-table or by special instructions.

F-273. On portions of the road so specified on the time-table, trains will run with the current of traffic by block signals, whose indications will supersede time-table superiority.

F-274. A train by night running with the current of traffic, on a high speed track, will display two red lights to the rear. (Illustrated by diagram on page 95.)

A train by night running with the current of traffic, on a slow speed track, or a train by night using any track against the current of traffic, will display a green light to the rear on the side next

to the high speed track in the direction of the current of traffic, and a red light on the opposite side. (Illustrated by diagrams on pages 96, 97.)

A train by night on a siding will display two green lights to the rear.

F-275. Engine Whistle Signals.

NOTE—The signals prescribed are illustrated by “o” for short sounds, “—” for longer sounds. The sound of the whistle should be distinct, with intensity and duration proportionate to the distance signal is to be conveyed.

SOUND.	INDICATION.
(a) —————	Flagman for Track No. 1 return from the rear.
(b) ———	Flagman for Track No. 2 return from the rear.
(c) ——— o	Flagman for Track No. 3 return from the rear.
(d) ——— o	Flagman for Track No. 4 return from the rear.
(e) o ———	Flagman for Track No. 1 return from the front.
(f) o ———	Flagman for Track No. 2 return from the front.
(g) o ——— o	Flagman for Track No. 3 return from the front.
(h) o ——— o	Flagman for Track No. 4 return from the front.

F-276. Except as affected by these rules, all Block Signal Rules and Train Rules for Double Track remain in force.

RULES FOR MOVEMENT BY TRAIN ORDERS.

201. For movements not provided for by time-table, train orders will be issued by authority and over the signature of the Superintendent. They must contain neither information nor instructions not essential to such movements.

They must be brief and clear; in the prescribed forms when applicable; and without erasure, alteration or interlineation.

202. Each train order must be given in the same words to all persons or trains addressed.

203. Train orders will be numbered consecutively each day, beginning with No. 1 at midnight.*

204. Train orders must be addressed to those who are to execute them, naming the place at which each is to receive his copy. Those for a train must be addressed to the conductor and engineer, and also to any one who acts as its pilot. A copy for each person addressed must be supplied by the operator.

Orders addressed to operators restricting the movement of trains must be respected by con-

* Where more than one dispatching district is operated from an office, train order numbers on each district should differ, for example—one district beginning with No. 1, another district No. 201, etc.

ductors and engineers the same as if addressed to them.

205. Each train order must be written in full in a book provided for the purpose at the office of the Superintendent; and with it recorded the names of those who have signed for the order; the time and the signals which show when and from what offices the order was repeated and the responses transmitted; and the train dispatcher's initials. These records must be made at once, and never from memory or memoranda.

206. Regular trains will be designated in train orders by the train and engine numbers, as "No. ten, 10, Eng. 162," or "Second, 2d, No. ten, 10, Eng. 184;" extra trains by engine numbers, and the direction as "Extra 798 'East' or 'West.' " Other numbers and time must be written in full and duplicated in figures.

207. To transmit a train order, the signal "31" or the signal "19" must be given to each office addressed, the number of copies being stated thus, "31 copy 5," or "19 copy 2."

208. A train order to be sent to two or more offices must be transmitted simultaneously to as many of them as practicable. The several addresses must be in the order of superiority of trains, each office taking its proper address. When not sent simultaneously to all, the order must be sent first to the superior train.

209. Operators receiving train orders must write them in manifold during transmission, and if they cannot at one writing make the requisite number of copies, the train dispatcher must again send the order, which must be repeated as was the original, by the operator from his manifold copy, except orders restricting the speed of trains, which may be traced from an original copy.

210. When a "31" train order has been transmitted, operators must (unless otherwise directed) repeat it at once from the manifold copy in the succession in which the several offices have been addressed, and then write the time of repetition on the order. Each operator receiving the order should observe whether the others repeat correctly.

Those to whom the order is addressed, except engineer, must then sign it, and the operator will send their signatures preceded by the number of the order to the Superintendent. The response "complete" and the time, with the initials of the Superintendent, will then be given by the train dispatcher. Each operator receiving this response will then write on each copy the word "complete," the time, and his last name in full, and then deliver a copy to each person addressed, except engineer, which they will compare while the conductor reads the order to the operator aloud. The copy for each engineer must be

delivered to him personally by the conductor, and the engineer must read it aloud to him and understand it before acting upon it.

211. When a "19" train order has been transmitted, operators must (unless otherwise directed) repeat it at once from the manifold copy, in the succession in which the several offices have been addressed. Each operator receiving the order should observe whether the others repeat correctly. When the order has been repeated correctly by an operator, the response "complete," and the time, with the initials of the Superintendent, will be given by the train dispatcher. The operator receiving this response will then write on each copy the word "complete," the time, and his last name in full, and personally deliver a copy to each person addressed without taking his signature. When delivery to engineer will take the operator from the immediate vicinity of his office, the engineer's copy must be delivered by the conductor, personally.

A "19" train order restricting the superiority of a train may be used only when specifically authorized by General Order or Special Rule upon the time-table, and it must provide that when such an order is issued at a point where the superiority is restricted, the train must be brought to a stop before delivery of the order, and immediately thereafter the operator must

notify the train dispatcher that it has been delivered.

211 (A). Train orders that restrict the superiority of a train must not be issued for it at the point where such superiority is restricted, unless to avoid very serious delay, and a "Stop Signal" in addition to the "Fixed Signal" is displayed.

211 (B). Conductors will show their train orders to the baggage master or flagman, and the locomotive engineer to the fireman.

Firemen, flagmen and brakemen will read carefully and keep in mind train orders received, and should occasion require, will call the attention of the locomotive engineer and conductor to them.

212. A train order may, when so directed by the train dispatcher, be acknowledged without repeating, by the operator responding: "X (*Number of Train Order*) to (*Train Number*)," with the operator's initials and office signal. The operator must then write on the order his initials and the time.

213. "Complete" must not be given to a train order for delivery to an inferior train until the order has been repeated or the "X" response sent by the operator who receives the order for the superior train.

214. When a train order has been repeated or "X" response sent, and before "complete" has been given the order must be treated as a holding order for the train addressed, but must not be otherwise acted on until "complete" has been given.

If the line fail before an office has repeated an order, or has sent the "X" response, the order at that office is of no effect and must be there treated as if it had not been sent.

215. The operator who receives and delivers a train order must preserve the lowest copy.

216. For train orders delivered by the train dispatcher the requirements as to the record and delivery are the same as at other offices.

Such orders shall be first written in manifold so as to leave an impression in the record book, from which the transmission shall be made.

217. A train order to be delivered to a train at a point not a telegraph station, or at one at which the telegraph office is closed, must be addressed to "C. and E. (*Train Number, Engine Number*) at (*Station*), care of (*Person Delivering*)" and forwarded and delivered by the conductor or other person in whose care it is addressed. When form 31 is used "complete" will be given upon the signature of the person by whom the order is to be delivered, who must be supplied

with copies for the conductor and engineer addressed, and a copy upon which he shall take their signatures. This copy he must deliver to the first operator accessible, who must preserve it, and at once transmit the signatures of the conductor and engineer to the Superintendent.

Orders so delivered must be acted on as if "complete" had been given in the usual way.

For orders which are sent, in the manner herein provided, to a train, the superiority of which is thereby restricted, "complete" must not be given to an inferior train until the signatures of the conductor and locomotive engineer of the superior train have been sent to the Superintendent.

218. When a train is named in a train order, all its sections are included unless particular sections are specified, and each section included must have copies addressed and delivered to it.

219. Unless otherwise directed, an operator must not repeat or give the "X" response to a train order for a train which has been cleared, or of which the engine has passed his train order signal, until he has obtained the signatures of the conductor and locomotive engineer to the order.

220. Train orders once in effect continue so until fulfilled, superseded or annulled. Any part of an order specifying a particular movement may be either superseded or annulled.

Orders held by or issued for, or any part of an order relating to, a regular train become void when such train loses both right and schedule as prescribed by Rules 4 and 82, or is annulled.

220 (A). Train orders relating to reduction of speed, on account of conditions which are liable to exist longer than ten days, must be duplicated in the form of a General Order within three days after the issuance of the train order, and when the General Order has been signed for by all concerned, the train order must be annulled.

221. A fixed signal must be used at each train order office, which shall indicate "stop" when there is an operator on duty, except when changed to "proceed" to allow a train to pass after getting train orders, or for which there are no orders. A train must not pass the signal while "stop" is indicated, except to do station work, or when authorized by Form A. The signal must be returned to "stop" as soon as the train has passed. It must be fastened at "proceed" only when no operator is on duty. This signal must be used also to hold trains running in the same direction, the required time apart.

Operators must have the proper appliances for hand signaling ready for immediate use if the fixed signal should fail to work properly. If a

signal is not displayed at a night office, trains which have not been notified must stop and ascertain the cause, and report the facts to the Superintendent from the next open telegraph office.

Where the semaphore is used, the arm indicates "stop" when horizontal, and "proceed" when in an inclined or vertical position.

221 (A). Delivered train orders must be accompanied by a Form A for each person to whom the orders are addressed, and specify the numbers of the orders delivered.

One copy of Form A will be delivered by the conductor to each locomotive engineer with "31" train orders.

Form A will be taken in manifold, one copy being retained by the operator for the office file.

Form A authorizes a train to pass a "stop" signal, located at the point where the form is issued.

222. Operators will promptly record and report to the Superintendent the time of departure of all trains and the direction of extra trains. They will record the time of arrival of trains and report it when so directed.

223. The following signs and abbreviations may be used:

Initials for signature of the Superintendent.
Such office and other signals as are arranged by the Superintendent.

C & E—for Conductor and Engineer.

X—Train will be held until order is made “complete.”

Com—for Complete.

O S—Train Report.

No—for Number.

Eng—for Engine.

Sec—for Section.

Psgr—for Passenger.

Frt—for Freight.

Mins—for Minutes.

Jct—for Junction.

Dispr—for Train Dispatcher.

Opr—for Operator.

31 or 19—to clear the line for Train Orders,
and for Operators to ask for Train Orders.

S D—for “Stop Displayed.”

G S—Green Signals.

N S—No Signals.

W S—White Signals.

The usual abbreviations for the names of the months and stations.

FORMS OF TRAIN ORDERS.

Form A. Fixing Meeting Points for Opposing Trains.

(1.) —— meet —— at ——.

(2.) —— meet —— at —— —— at —
(and so on.)

EXAMPLES.

(1) *No Fifty-five 55 Eng 873 meet No Four 4 Eng 888 at "B."*

*No Forty-six 46 Eng 880 meet Second 2d
No Five 5 Eng 1313 at "B."*

*No One hundred four 104 Eng 762 meet
Extra 1912 at "B."*

*Extra 1866 East meet Extra 1704 West at
"B." Extra 1704 take siding.*

(2) *No Forty-six 46 Eng 1402 meet First 1st
No Ninety-three 93 Eng 1860 at "B;" Second 2d
No Ninety-three 93 Eng 1862 at "C" and Extra
1512 at "D."*

Trains receiving these orders will run with respect to each other to the designated points and there meet in the manner provided by the rules.

Form B. Directing a Train to Pass or Run Ahead of Another Train.

- (1.) —— pass —— at ——.
- (2.) —— pass —— when overtaken.
- (3.) —— run ahead of —— —— to ——.
- (4.) —— run ahead of —— —— until overtaken.
- (5.) —— pass —— at —— and run ahead of —— —— to ——.

EXAMPLES.

- (1) *No One 1 Eng 1602 pass No Three 3 Eng 1702 at "K."*
- (2) *No Six 6 Eng 1810 pass No Four 4 Eng 1826 when overtaken.*
- (3) *Extra 594 East run ahead of No Six 6 Eng 1828 "M" to "B."*
- (4) *Extra 1450 West run ahead of No Three 3 Eng 2410 "B" until overtaken.*
- (5) *No One 1 Eng 2412 pass No Three 3 Eng 2420 at "K" and run ahead of No Seven 7 Eng 2421 "M" to "Z."*

When under (1) a train is to pass another both trains will run according to rule to the designated point and there arrange for the rear train to pass promptly.

Under (2), both trains will run according to rule until the second-named train is overtaken

and then arrange for the rear train to pass promptly.

Under (3), the second-named train must not exceed the speed of the first-named train between the points designated.

Under (4), the first-named train will run ahead of the second-named train from the designated station until overtaken, and then arrange for the rear train to pass promptly.

When an inferior train receives an order to pass a superior train, right is conferred to run ahead of the train passed from the designated point.

Form C. Giving Right to a Train Over an Opposing Train.

— has right over — to —.

EXAMPLES.

(1) *No One 1 Eng 2410 has right over No Two 2 Eng 2428 "G" to "X."*

(2) *Extra 37 East has right over No Three 3 Eng 2429 "F" to "A."*

This order gives right to the train first named over the other train between the points named.

If the trains meet at either of the designated points, the first-named train must take the siding, unless the order otherwise prescribes.

Under (1), if the second-named train reach the point last named before the other arrives, it may proceed, keeping clear of the opposing train as many minutes as such train was before required to clear it under the rules.

Under (2), the regular train must not go beyond the point last named until the extra train has arrived, unless directed by train order to do so.

Form E. Time Orders.

- (1.) ——— run ——— late ——— to ———.
- (2.) ——— run ——— late ——— to ——— and
——— late ——— to ——— etc.
- (3.) ——— wait at ——— until ——— for ———.
- (4.) ——— wait at ——— until ———.
————— until ———.
————— until ———.

EXAMPLES.

(1) *No One 1 Eng 2115 run twenty 20 mins late "A" to "G."*

(2) *No One 1 Eng 2115 run twenty 20 mins late "A" to "G" and fifteen 15 mins late "G" to "K" etc.*

(3) *No Two 2 Eng 2112 wait at "H" until ten 10 00 A M for No One 1 Eng 2115.*

(4) *Nos One 1 Eng 2115 and Three 3 Eng 2116 wait at "N" until ten 10 00 A M.*

"P" until ten thirty 10 30 A M

"R" until ten fifty five 10 55 A M etc.

(1) and (2) make the schedule time of the train named, between the stations mentioned, as much later as stated in the order, and any other train receiving the order is required to run with respect to this later time, as before required to run with respect to the regular schedule time. The time in the order should be such as can be easily added to the schedule time.

Under (3), the train first named must not pass the designated point before the time given, unless the other train has arrived. The train last named is required to run with respect to the time specified, at the designated point or any intermediate station where schedule time is earlier than the time specified in the order, as before required to run with respect to the schedule time of the train first named.

Under (4), the train (or trains) named must not pass the designated points before the times given.

Other trains receiving the order are required to run with respect to the time specified at the designated points or any intermediate station where schedule time is earlier than the time specified in the order as before required to run with respect to the schedule time of the train (or trains) named.

All of these examples may be used in connection with an extra train created by example (3)

of Form G and the times at each point stated in that example have the same meaning as schedule times in the foregoing examples.

Form F. For Sections.

- (1.) _____ display signals and run as _____ to _____.
- (2.) _____ run as _____ to _____.
- (3.) _____ display signals _____ to _____ for _____.
- (6.) _____ is withdrawn as _____ at _____.
- (7.) _____ instead of _____ display signals and run as _____ to _____.
- (8.) _____ take down signals at _____.
- (9.) _____ and _____ reverse positions as _____ and _____ to _____.

EXAMPLES.

(1) *Eng 20 display signals and run as First 1st No One 1 "A" to "Z."*

(2) *Eng 25 run as Second 2d No One 1 "A" to "Z."*

(3) *No One 1 Eng 20 display signals "A" to "G" for Eng 25.*

Second 2d No One 1 Eng 25 display signals "B" to "E" for Eng 99.

These examples may be modified as follows:

(4) *Engs 20 25 and 99 run as First 1st Second 2d and Third 3d No One 1 "A" to "Z."*

Example (1) is to be used when the number of the engine for which signals are displayed is unknown and is to be followed by example (2), both being single order examples.

Under example (2) the engine named will not display signals.

Under examples (3) and (4) the engine last named will not display signals.

For changing sections:

To add an intermediate section the following modification of example (1) will be used:

(5) *Eng 85 display signals and run as second, 2d No One 1 "N" to "Z." Following sections change numbers accordingly.*

Under (5) Engine 85 will display signals and run as directed and following sections will take the next higher number.

To drop an intermediate section the following example will be used:

(6) *Eng 85 is withdrawn as Second 2d No One 1 at "H." Following sections change numbers accordingly.*

Under (6) Engine 85 will drop out at "H" and following sections will take the next lower number.

To substitute one engine for another on a section, the following will be used:

(7) *Eng 18 instead of Eng 85 display signals and run as Second 2d No One 1 "R" to "Z."*

Under (7) Engine 85 will drop out at "R" and Engine 18 will run as directed.

If Engine 85 is last section the words "display signals and" will be omitted. Following sections need not be addressed.

To discontinue the display of signals the following example will be used:

(8) *Second 2d No One 1 Eng 85 take down signals at "R."*

Under example (8) 2d No. 1 will take down signals as directed and a following section must not proceed beyond the point named.

To pass one section by another, the following will be used:

(9) *Engs 99 and 25 reverse positions as Second 2d and Third 3d No One 1 "H" to "Z."*

Under (9) Engine 99 will run ahead of Engine 25 "H" to "Z," and, if necessary, both engines will arrange signals accordingly. Following sections, if any, need not be addressed.

The character of a train for which signals are displayed may be stated. Each section affected by the order must have copies, and must arrange signals accordingly.

To annul a section for which signals have been displayed over a division or any part thereof, when no train is to follow the signals, Form K must be used.

Form G. Extra Trains.

- (1.) Eng _____ run extra _____ to _____.
(2.) Eng _____ run extra _____ to _____ and return to _____.

EXAMPLES.

- (1) *Eng 99 run extra "A" to "F."*
(2) *Eng 99 run extra "A" to "F" and return to "C."*

Under (2) the extra must go to "F" before returning to "C."

- (3.) Eng _____ run extra leaving _____ on _____ as follows with right over all trains:

Leave _____.

" _____.

Arrive _____.

EXAMPLE.

- (3) *Eng 77 run extra leaving "A" on Thursday Feb seventeenth 17th as follows with right over all trains:*

*Leave "A" eleven thirty 11 30 P M
" "C" twelve twenty five 12 25 A M
" "E" one forty seven 1 47 A M*

Arrive "F" two twenty two 2 22 A M

This order may be varied by specifying the kind of extra and the particular trains over which the extra shall or shall not have right. Trains over which the extra is thus given right must clear the time of the extra five minutes.

Form H. Work Extra.

(1.) _____ works _____ until _____ between _____ and _____.

EXAMPLES.

(1). *Eng 292 works seven 7 A M to six 6 P M between "D" and "E."*

Under (1), the work extra must, whether standing or moving, protect itself against extras within the working limits in both directions as prescribed by rule. The time of regular trains must be cleared.

This may be modified by adding:

(2) *Not protecting against (Eastward) extras.*

(3) *Not protecting against extras.*

Under (2), the work extra will protect only against (Westward) extras. The time of regular trains must be cleared.

Under (3), protection against extras is not required. The time of regular trains must be cleared.

When a work extra has been instructed by order to not protect against extra trains, and, afterward, it is desired to have it clear the track for (or protect itself after a certain hour against) a designated extra, an order may be given in the following form:

(4) *Work Extra 292 clears (or protects against) Extra 76 East between "D" and "E" after two ten 2 10 P.M.*

Under (4), extra 76 East must not enter the working limits before 2.10 P. M., and will then run expecting to find the work extra clear of the main track (or protecting itself) as the order may require.

To enable a work extra to work upon the time of a regular train, the following form will be used:

(5) *Work Extra 292 protects against No Fifty five 55 (or —— class trains) between "D" and "E."*

Under (5), the work extra may work upon the time of the train or trains mentioned in the order, and must protect itself against such train or trains, as prescribed by Rule 99. The regular train or trains receiving the order will run expecting to find the work extra protecting itself.

When a work extra is to be given exclusive right over all trains the following form will be used:

(6) *Work Extra 292 has right over all trains between "D" and "E" seven 7 P M to twelve 12 night.*

This gives the work extra the exclusive right between the points designated between the times named.

Work extras must give way to all trains as promptly as practicable

Whenever extra trains are run over working limits, they must be given a copy of the order sent to the work extra. Should the working order instruct a work extra to not protect against extra trains in one or both directions, extra trains must protect, as prescribed by Rule 99, against the work extra; if the order indicates that the work extra is protecting itself against other trains, they will run expecting to find the work extra protecting itself.

The working limits should be as short as practicable; to be changed as the progress of the work may require.

D. Form H. Work Extra.

(1) Eng.—works on—track—to—
between—and—.

EXAMPLE.

(1) *Eng. 292 works on Eastward track (or both tracks) seven 7 A. M. to six 6 P. M. between "D" and "E."*

Under (1), the work extra must, whether standing or moving, protect itself within the working limits against extras moving with the current of traffic on the track or tracks named, as prescribed by Rule 99. The time of regular trains must be cleared.

This form may be modified by adding:

(2) *Not protecting against extras.*

Under (2), protection against extra trains is not required. The time of regular trains must be cleared.

To enable a work extra to work upon the time of a regular train, the following form may be used:

(3) *Work extra 292 protects against No Fifty-five 55 (or——class trains) between "D" and "E."*

Under (3), the work extra may work upon the time of the train (or trains) mentioned in the order and must protect against such train (or trains) as prescribed by Rule 99. The regular train or trains receiving the order will run, expecting to find the work extra protecting itself.

When it is desired to move a train against the current of traffic over the working limits, provision must be made for the protection of such movement.

When a work extra is to be given exclusive right over all trains, the following form will be used:

(4) *Work extra——has right over all trains on——track between——and——M to——M.*

EXAMPLE.

(4) *Work extra 275 has right over all trains on Eastward and Westward tracks between "G" and "H" seven 7 P. M. to twelve 12 Night.*

This gives the work extra the exclusive right to the track (or tracks) mentioned between the points designated between the times named.

Work extras must give way to all trains as promptly as practicable.

The working limits should be as short as practicable, to be changed as the progress of the work may require.

Form J. Holding Order.

Hold——.

EXAMPLES.

Hold No Two 2 Eng 2446.

Hold all (or ——ward) trains.

When a train has been so held it must not proceed until the order to hold is annulled, or an order given to the operator in the form:

"——may go."

These orders will be addressed to the operator and acknowledged in the usual manner, and will be delivered to conductors and engineers of all trains affected.

Form J will only be used when necessary to hold trains until orders can be given, or in case of emergency.

Form K. Annulling a Schedule or a Section.

— of — is annulled — to —.

EXAMPLES.

No One 1 Eng 2447 of Feb twenty ninth 29th is annulled "A" to "Z."

Second 2d No Five 5 Eng 2448 of Feb twenty ninth 29th is annulled "E" to "G."

The schedule or section annulled becomes void between the points named and cannot be restored.

This form must not be combined with any other.

Form L. Annulling an Order.

Order No. — is annulled.

EXAMPLE.

Order No Ten 10 is annulled.

If an order which is to be annulled has not been delivered to a train, the annulling order will be addressed to the operator, who will destroy all copies of the order annulled but his own, and write on that:

Annulled by Order No —.

An order which has been annulled must not be reissued under its original number.

Form M. Annulling Part of an Order.

That part of Order No — reading —
is annulled.

EXAMPLE.

That part of order No ten 10 reading No One 1 Eng 2448 meet No Two 2 Eng 2445 at "S" is annulled.

Form P. Superseding an Order or a Part of an Order.

This order will be given by adding to prescribed forms the words "instead of—."

(1.) —— meet —— at —— instead of ——

(2.) —— has right over —— —— to —— instead of ——.

(3.) —— display signals for —— —— to —— instead of ——.

EXAMPLES.

(1) *No One 1 Eng 2448 meet No Two 2 Eng 2447 at "C" instead of "B."*

(2) *No One 1 Eng 2448 has right over No Two 2, Eng 2447 "G" to "R" instead of "X."*

(3) *No One 1 Eng 2448 display signals for Eng 85 "A" to "Z" instead of "G."*

An order which has been superseded must not be reissued under its original number.

Form R. Providing for a Movement Against the Current of Traffic.

(1.) —— has right over opposing trains on —— track —— to ——.

EXAMPLE.

(1) *No One 1 Eng 2448 has right over opposing trains on No Two 2 (or Eastward) track "C" to "F."*

A train must not be moved against the current of traffic until the track on which it is to run has been cleared of opposing trains.

Under this order the designated train must use the track specified between the points named and has right over opposing trains on that track between those points. Opposing trains must not leave the point last named until the designated train arrives.

An inferior train between the points named moving with the current of traffic in the same direction as the designated train must receive a copy of the order, and may then proceed on its schedule, or right.

This order may be modified as follows:

(2.) After _____ arrives at _____ has right over opposing trains on _____ track _____ to _____.

EXAMPLE.

(2.) *After No Four 4 Eng 2449 arrives at "C" No One 1 Eng 2448 has right over opposing trains on No Two 2 (or Eastward) track "C" to "F."*

Under (2), the train to be moved against the current of traffic must not leave the first-named point until the arrival of the first-named train.

Form S. Providing for the Use of a Section of Double Track as Single Track.

_____ track will be used as single track between _____ and _____.

If it is desired to limit the time for such use add (from _____ until _____).

EXAMPLE.

No one 1 (or Westward) track will be used as single track between "F" and "G."

Adding if desired

from one 1 P M to three 3 P M

Under this order all trains must use the track specified between the stations named and will be governed by rules for single track.

Trains running against the current of traffic on the track named must be clear of the track at the expiration of the time named, or protected as prescribed by Rule 99.

which would be used for all your off-hand
writing, and which is suitable.

Yours very truly

John C. Green
Editor of "The Atlantic Monthly"

John C. Green
Editor of "The Atlantic Monthly"
Boston, Mass., April 10, 1870.

John C. Green
Editor of "The Atlantic Monthly"
Boston, Mass., April 10, 1870.

John C. Green
Editor of "The Atlantic Monthly"
Boston, Mass., April 10, 1870.

John C. Green
Editor of "The Atlantic Monthly"
Boston, Mass., April 10, 1870.

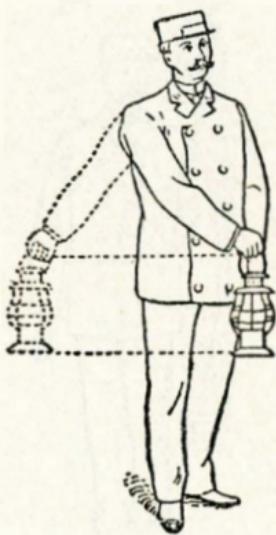
John C. Green
Editor of "The Atlantic Monthly"
Boston, Mass., April 10, 1870.

John C. Green
Editor of "The Atlantic Monthly"
Boston, Mass., April 10, 1870.

**DIAGRAMS
OF
HAND, FLAG AND
LAMP SIGNALS.**

NOTE.

The hand, or a flag, moved the same as the lamp, as illustrated in the following diagrams, gives the same indication.



Stop—Swung across the track.

See Rule 12 (a).

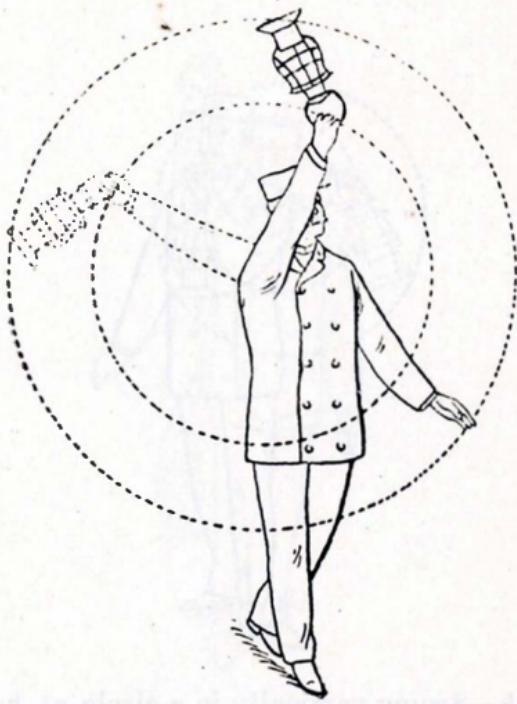


Proceed—Raised and lowered vertically.
See Rule 12 (b).



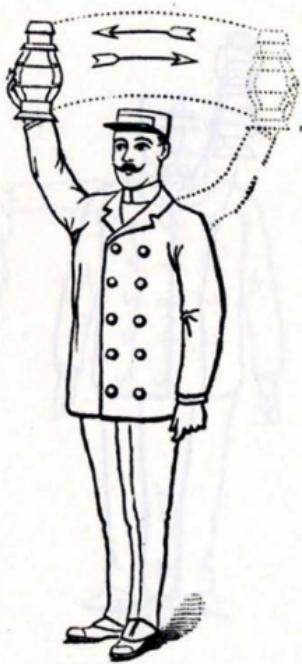
Back—Swung vertically in a circle at half arm's length across the track.

See Rules 12 (c) and 14 (k).



**Train has Parted—Swung vertically in a circle
at arm's length across the track.**

See Rules 12 (d) and 14 (h).



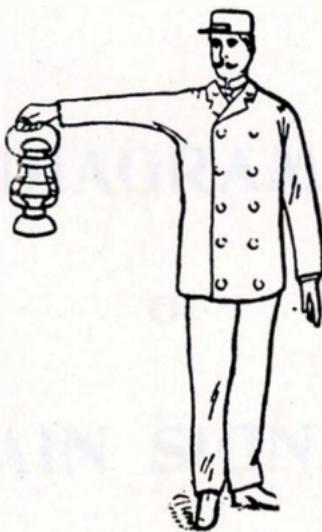
**Apply Air Brakes—Swung horizontally
above the head.**

See Rule 12 (e).



Release Air Brakes—Held at arm's length
above the head.

See Rule 12 (f).



Reduce Speed—Held horizontally at arm's length.

See Rule 12 (g).

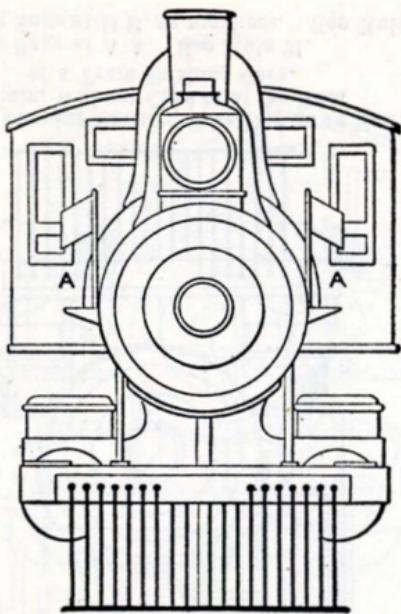


**DIAGRAMS
OF
TRAIN SIGNALS.**

NOTES.

The diagrams are intended to illustrate the general location of the train signals, not the exact manner in which they are to be attached.

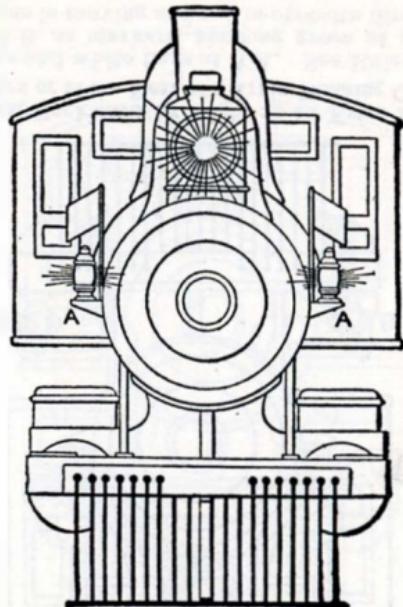
Combination lamps with four illuminated colored faces are represented in the diagrams.



Engine Running Forward by Day as an Extra Train.

White flags at A A.

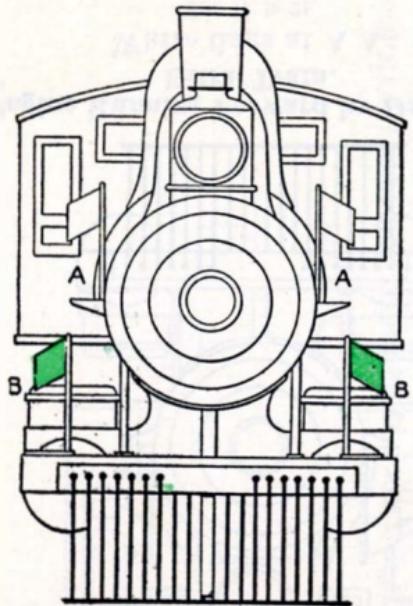
See Rule 21.



Engine Running Forward by Night as an Extra Train.

White lights and white flags at A A.

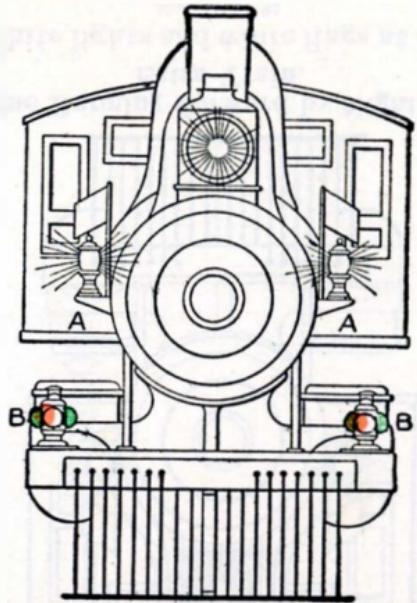
See Rule 21.



Engine Running Backward by Day as an Extra Train, Without Cars or at the Rear of a Train Pushing Cars.

White flags at A A. See Rule 21.

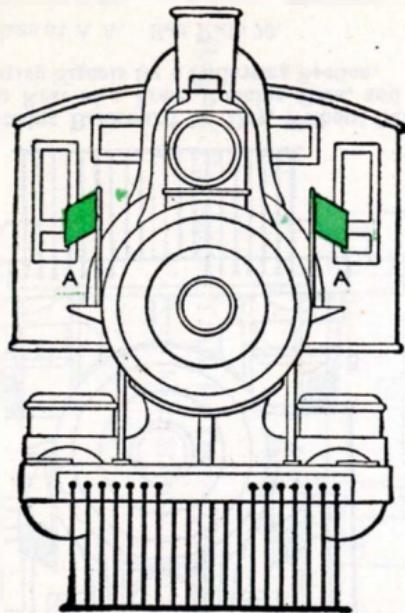
Green flags at B B, as markers. See Rule 19.



Engine Running Backward by Night as an Extra Train, Without Cars or at the Rear of a Train Pushing Cars.

White lights and white flags at A A. See Rule 21.

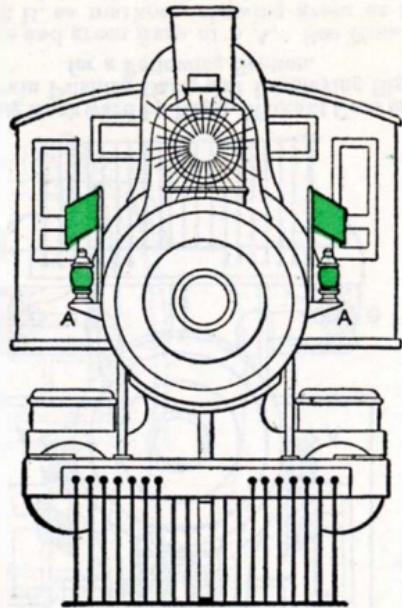
Lights at B B, as markers, showing green at side and in direction engine is moving and red in opposite direction. See Rule 19.



Engine Running Forward by Day Displaying Signals for a Following Section.

Green flags at A A.

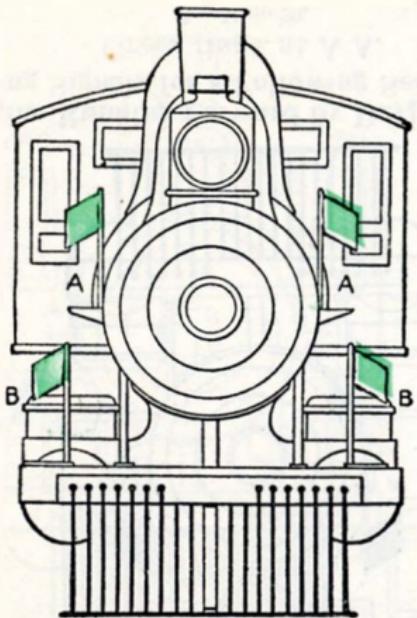
See Rule 20.



Engine Running Forward at Night Displaying Signals for a Following Section.

Green lights and green flags at A A.

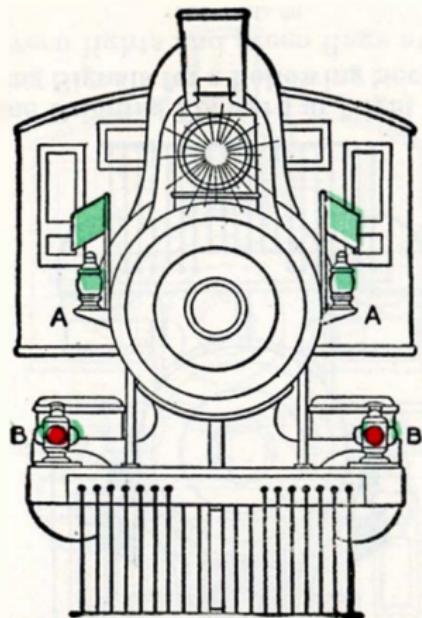
See Rule 20.



Engine Running Backward by Day, Without Cars or at the Rear of a Train Pushing Cars, and Displaying Signals for a Following Section.

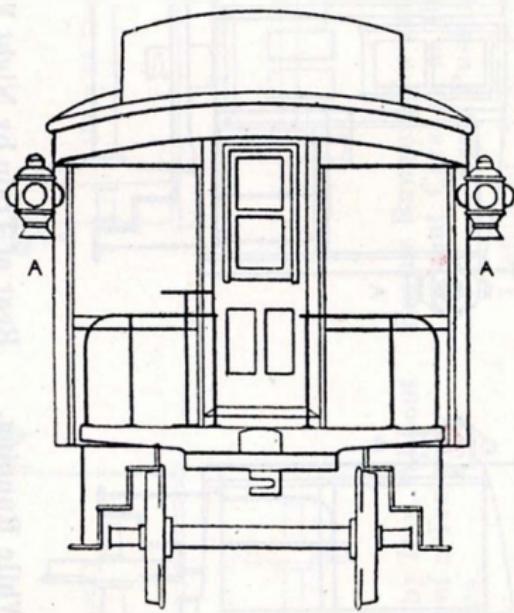
Green flags at A A. See Rule 20.

Green flags at B B. as markers. See Rule 19.



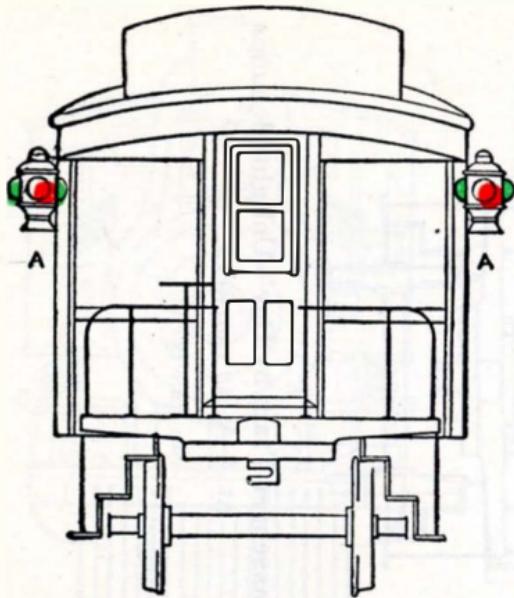
Engine Running Backward by Night, Without Cars or at the Rear of a Train Pushing Cars, and Displaying Signals for a Following Section.

Green lights and green flags at A A. See Rule 20.
Lights at B B, as markers, showing green at side and in direction engine is moving and red in opposite direction. See Rule 19.



**Rear of Passenger Train by Day—Unlighted lamps
at A A, as markers.**

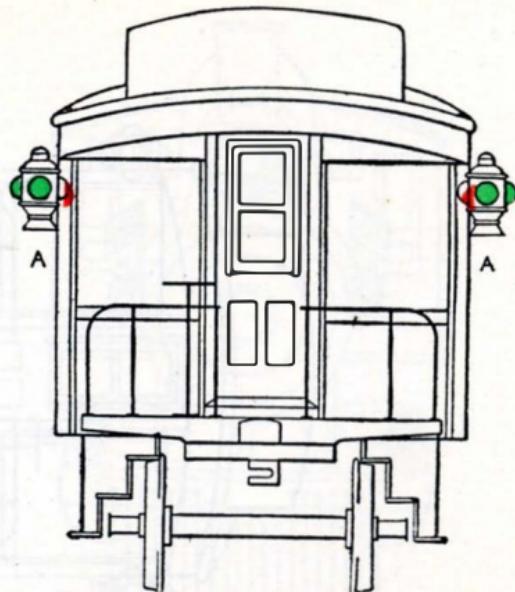
See Rule 19 (A).



Rear of Train by Night While Running.

Lights at A A, as markers, showing green toward engine and side and red to rear.

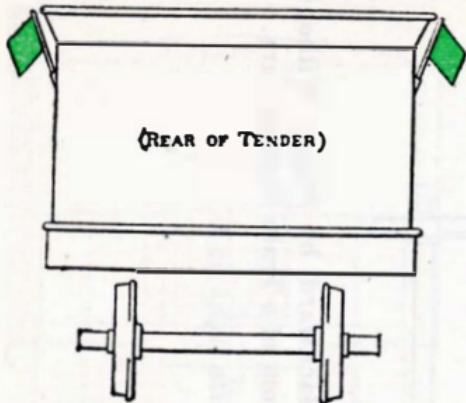
See Rule 19.



Rear of Train by Night When on Siding to be Passed by Another Train.

Lights at A A, as markers, showing green toward engine, side and to rear.

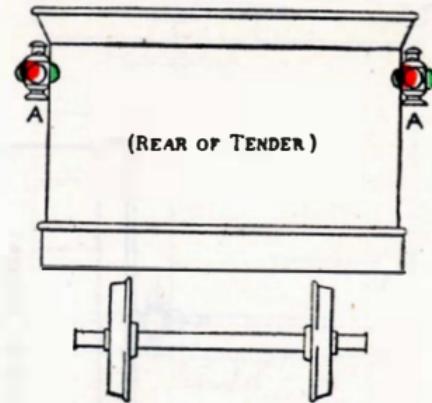
See Rule 19.



Engine Running Forward by Day, Without Cars or at the Rear of a Train Pushing Cars.

Green flags, as markers.

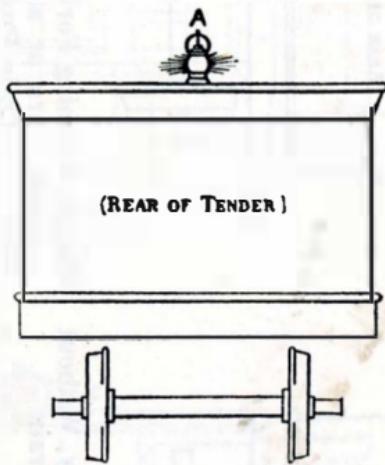
See Rule 19.



Engine Running Forward by Night, Without Cars or at the Rear of a Train Pushing Cars.

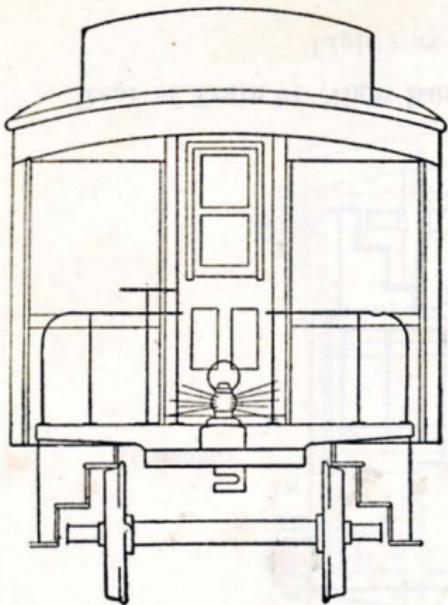
Lights at A A, as markers, showing green to the front and side and red to rear.

See Rule 19.



**Engine Running Backward by Night, Without
Cars or at the Front of a Train Pulling Cars.**

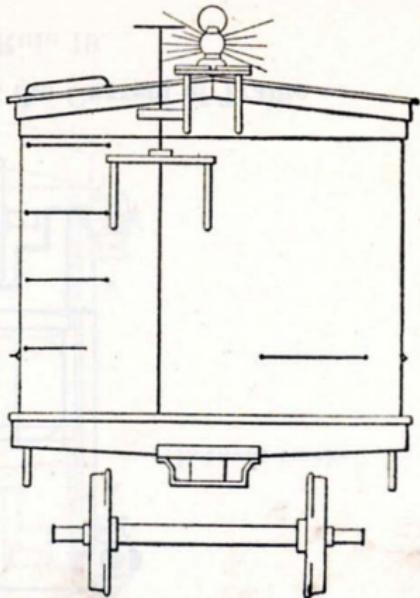
White light at A.



Passenger Cars Being Pushed by an Engine by Night.

White light on front of leading car.

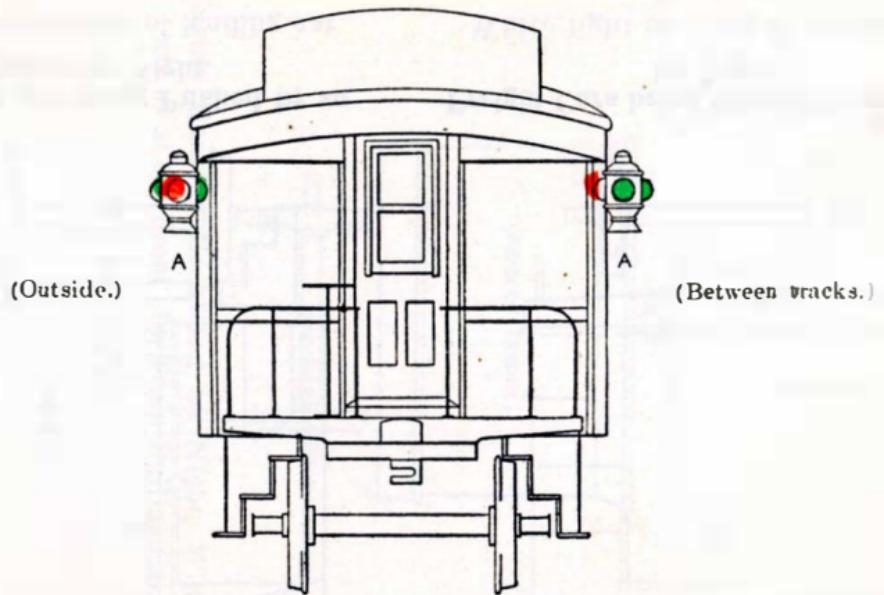
See Rule 24.



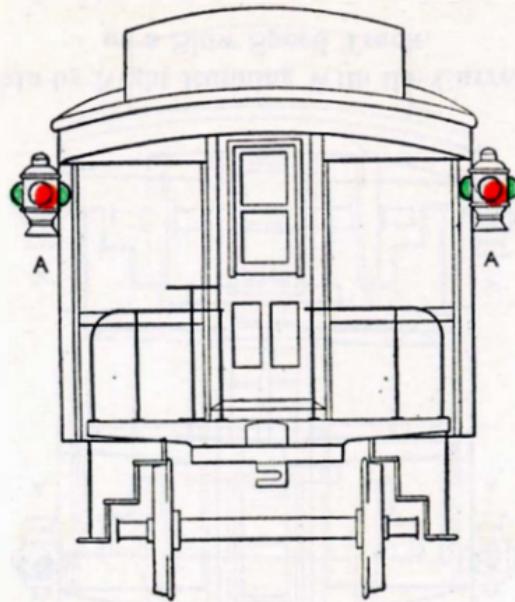
Freight Cars being Pushed by an Engine by Night.

White light on front of leading car.

See Rule 24.



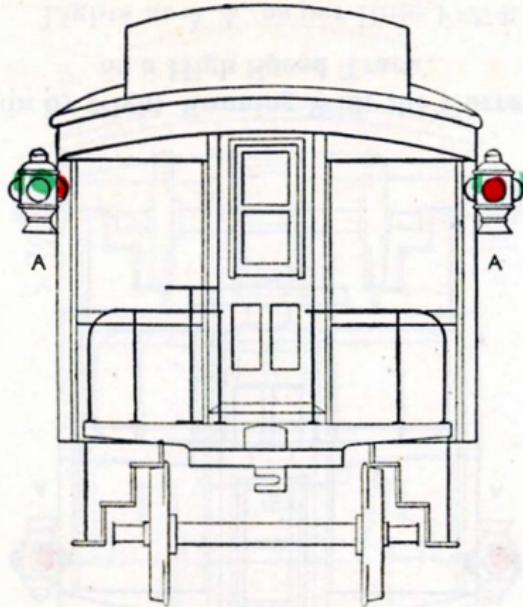
Rear of Train by Night Running Against the Current of Traffic.
Lights at A A, as per Rule 19.



**Rear of Train by Night Running With the Current of Traffic
on a High Speed Track.**

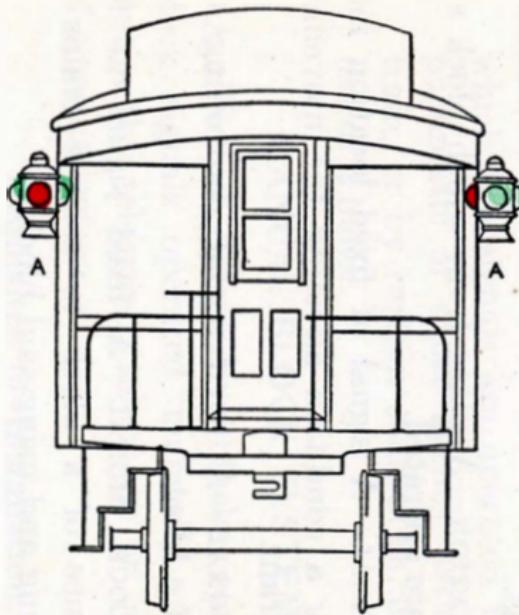
Lights at A A, as per Rule F-274.

(High Speed Track.)
A A



**Rear of Train by Night Running With the Current of Traffic
on a Slow Speed Track.**

Lights at A A, as per Rule F-274.



(High Speed Track.)
^ ^

**Rear of Train by Night Running on Any Track Against the
Current of Traffic.**

Lights at A A, as per Rule F-274.

BLOCK SIGNAL, INTERLOCKING AND TELEPHONE RULES.

DEFINITIONS.

BLOCK—A length of track of defined limits, the use of which by trains is controlled by block signals.

BLOCK STATION—A place from which block signals are operated.

FIXED SIGNAL—A signal of fixed location indicating a condition affecting the movement of a train.

BLOCK SIGNAL—A fixed signal controlling the use of a block.

HOME BLOCK SIGNAL—A fixed signal at the entrance of a block to control trains in entering and using said block.

DISTANT BLOCK SIGNAL—A fixed signal used in connection with a Home (and Advance) Block Signal to regulate the approach thereto.

ADVANCE BLOCK SIGNAL—A fixed signal used in connection with a Home Block Signal to sub-divide the block in advance.

BLOCK SYSTEM—A series of consecutive blocks.

MANUAL BLOCK SYSTEM—A block system in which the signals are operated manually.

CONTROLLED MANUAL BLOCK SYSTEM.—A block system in which the signals are operated manually, and so constructed as to require the co-operation of the signalmen at both ends of the block to display a Clear or a Caution Block Signal.

AUTOMATIC BLOCK SYSTEM—A block system in which the signals are operated by electric, pneumatic or other agency actuated by a train, or by certain conditions affecting the use of a block.

MANUAL BLOCK SYSTEM.*

A series of consecutive blocks, controlled by block signals operated manually, upon information by telegraph, telephone or other means of communication.

Requisites of Installation.

1. Signals of prescribed form, the indications given by not more than three positions; and, in addition, at night by lights of prescribed color.
2. The apparatus so constructed that the failure of any part directly controlling a signal will cause it to display the normal indication.

*Rules 301 to 379 inclusive, will not be effective except by special instructions.

3. Signals, if practicable, either over or upon the right of and adjoining the track upon which trains are governed by them. For less than three tracks signals for trains in each direction may be on the same signal mast.†

4. Semaphore arms that govern, displayed to the right of the signal mast as seen from an approaching train.

5. The normal indication of Home Block Signals—Stop.

Adjuncts.

The following may be used:

(A) Distant Block Signals interlocked with Home Block Signals; normal indication—Caution.

DISTANT BLOCK SIGNALS.

Signal.		Occasion For Use.	Indication.	Name.
*Color.	Position.	The signal will be displayed when	For engineers and trainmen.	As used in rules.
Green.	Diagonal.	Home (or advance) signal at Stop.	Proceed with caution to the home (or advance) signal.	Caution-signal.
White.	Vertical.	Home (and advance) signal at Clear.	Proceed.	Clear-signal.

* Where special instructions provide, Yellow indicates Caution; Green indicates Clear.

†The word "mast" refers to the upright to which the signals are directly attached.

- (B) Advance Block Signals interlocked with Distant Block Signals, if used; normal indication—Stop.
- (C) Repeaters, audible or visible, to indicate the position of block signals to the signalman operating them.
- (D) The automatic release of block signals to display the normal indication.
- (E) The interlocking of switches with block signals.
- (F) Communication between block stations and outlying switches.
- (G) The interlocking of telegraph keys with block signals.

THE BALTIMORE & OHIO SYSTEM.

FORM A.

----- Station, ----- 191

Conductor and Engineer. -----

- (A) 1. I have no orders for -----
2. Orders No. { ----- } Have been delivered and there are no further orders for -----
3. Proceed under ----- signal.
4. Preceding train ----- departed ----- M.
5. All trains due at ----- M. have arrived and departed except -----

(B) Signal is at Stop for trains ----- and to meet at ----- as per time-table or train order No. ----- Proceed.

(U) ----- may ----- out ; block is -----

(R) Signal is inoperative. Proceed under ----- signal.

(Y) Electric circuits are inoperative. Proceed with caution, expecting to find track obstructed. The preceding train was ----- engine ----- and departed ----- M.

----- Signalman.

FORM A.

Explanation of Use.

- (A) 1. To clear a train for which there are no orders.
2. To clear a train for which there are orders.
3. Under what signal to proceed.
4. Time block.
5. Notification of the arrival and departure of trains.
- (B) For trains meeting at intermediate closed block, non-telegraph and advance sidings.
- (U) For trains heading or backing out of sidings.
- (R) When signal is inoperative.
- (Y) When the electric circuits are inoperative.

Manifold copies of this form must be made for the conductor, engineer and signalman. The signalman must mark "X" across each unused lettered part.

This form does not annul any train order.

RULES.

301. HOME AND ADVANCE BLOCK SIGNALS.

Signal.		Occasion For Use.	Indication.	Name.
*Color.	Position.			
Red.	Horizontal.	Block is not Clear.	Stop.	Stop-signal.
Green.	Diagonal.	Block is not Clear.	Proceed with Caution.	Caution-signal.
White.	Vertical.	Block is Clear.	Proceed.	Clear-signal.

* Where special instructions provide, Yellow indicates Caution; Green indicates Clear.

301 (A). At block signal stations, where sidings are in advance of the block signal, signalmen must deliver Form A to conductors and locomotive engineers. This does not permit the train holding Form A to proceed after the arrival of the specified train, unless its timetable rights or special orders authorize it to do so. Trains receiving Form A must know that the specified train has arrived and see the markers before proceeding.

Intermediate closed block sidings or non-telegraph sidings will be considered as advance sidings.

302. Block signals control the use of the blocks, but, unless otherwise provided, do not supersede the superiority of trains; nor dispense with the use or the observance of other signals whenever and wherever they may be required.

303. When a block station is open at an irregular hour, trains must be notified by train order or by special instructions, and special precautions must be taken to call the attention of trains approaching the block station to the indications of the block signals.

304. When necessary to back out of a siding, after the opposing train has departed, the signalman must observe the same rules relative to an advance movement and must arrange with the signalman in the rear to protect the train backing out, record of which must be entered on the block record at both block stations. The signalman must issue Form A, part (U), to the conductor and engineer.

305. After a train has backed out of a siding, it will be governed in its forward movement on the main track by the indication of the block signal.

306. A train which is on the siding at a station may be reported as having arrived, provided the signalman knows that the entire train is in to clear, or has been so notified by the conductor.

307. When a signalman has orders for a train, the signal must not be changed for any other train unless by special instructions from the Superintendent, in accordance with Rules 35 and 36 for "USE OF SIGNALS." Such instructions do not affect the block signal rules.

308. When a meeting order is sent to trains, a copy of the order must be sent to the signalman at the meeting point. When the meeting point is at a non-telegraph station a copy of the order must also be sent to the telegraph station on each side where the signalman must keep the signal at Stop and deliver Form A, part (B), to the conductor and engineer.

Signalmen.

311. The normal indication of Home and Advance Block Signals is Stop; of Distant Block Signals is Caution.

312. Signals must be operated carefully and with a uniform movement. If a signal fails to work properly its operation must be discontinued and the signal secured so as to display the normal indication until repaired.

313. Signalmen must observe, as far as practicable, whether the indications of the signals correspond with the positions of the levers.

314. Signalmen must not make nor permit any unauthorized repairs, alterations or additions to the apparatus.

315. A block record must be kept at each block station. The signalman must record the time each train passes his and the adjoining block station in each direction, also all crossover movements and record the issuance of Form A authorized by telephone at outlet switches.

316. The prescribed communicating code is as follows:

1—Display Stop-signal.

13—I understand.

17—Display Stop-signal. Train following.

2—Block clear.

3—Block wanted for train other than passenger.

36—Block wanted for passenger train.

4—Train other than passenger has entered block.

46—Passenger train has entered block.

5—Block is not clear of train other than passenger.

56—Block is not clear of passenger train.

7—Train following.

8—Opening block station. Answer by record of trains in the extended block.

10—Closing block station. Answer by 13.

S D—Stop-signal Displayed.

O S—Train Report.

G S—Green Signals.

N S—No Signals.

W S—White Signals.

317. A train must not be admitted to a block that is occupied by an opposing train or by a passenger train, nor a passenger train be admitted when the block is occupied by another train, except as provided in Rule 332, or by train order.

A train, other than a passenger train, may be permitted to follow a train, other than a passenger train, into a block under Caution-signal; provided five minutes have elapsed since the departure of the preceding train, unless otherwise provided by rule or special instructions.

317 (B). (For absolute block for opposing and permissive block for following movements on the same track.)

To admit a train to a block, the signalman must examine the block record, and, if the block is clear, give "1 for.....Eng....." to the next block station in advance. The signalman receiving this signal, if the block is clear, must display the Stop-signal to opposing trains and reply "2 forEng....." If the block is not clear, he must reply "5 of..... Eng.....," or "56 of..... Eng....." The

signalman at the entrance of the block must then display the proper signal indication.

To permit a train to follow a train other than a passenger train into a block, the signalman must give "17 for.....Eng....." to the next block station in advance. The signalman receiving this signal, if there is no passenger train in the block, must reply "5 of.....Eng....., 13 for.....Eng....."

The approaching train will then be admitted to the block under Caution-signal and the spacing rule in force at the block station, and the signalman must report its movement as per Rule 319.

318 (B). (For permissive block for following movements on double track only.)

To admit a train to a block, the signalman must examine the block record, and, if the block is not occupied by a passenger train, give "3 forEng.....," or "36 for.....Eng.....," to the next block station in advance. The signalman receiving this signal, if the block is clear, must reply "2 for.....Eng....." If the block is not clear, he must reply "5 of.....Eng.....," or "56 of.....Eng....." The signalman at the entrance of the block must then display the proper signal indication.

A train may be permitted to follow a train other than a passenger train into a block under

a Caution-signal, in accordance with the spacing rule in force at the block station, and the signalman must report its movement as per Rule 319.

318 (C). The information given by the next block station in advance must agree with the block record of the signalman at the entrance of the block, before a train is admitted to it.

Signalmen receiving information of trains entering or clearing a block, must acknowledge receipt of same by "13."

When transmitting or acknowledging information, office calls and the initials of the operators must be given.

319. When a train enters a block, the signalman must give "4.....Eng.....," or "46.....Eng....." and the time, to the next block station in advance, and when the train has passed the Home Block Signal and the signalman has seen the markers, he must display the Stop-signal, and when the rear of the train has passed 200 feet beyond the Home Block Signal, he must give the record of the train to the next block station in the rear.

This information must be entered on the block records.

320. Unless otherwise provided, signalmen must not ask for the block until they have received "4" or "46" from the next block station in the rear.

321. Signalmen must observe all passing trains and note whether they are complete and in order, and the markers properly displayed.

322. Should a train pass a block station with any indication of conditions endangering the train, or a train on another track, the signalman must immediately notify the signalman at the next block station in advance, and each must display Stop-signals to all trains that may be affected, and must not permit any train to proceed until it is known that its track is not obstructed.

323. Should a train without markers pass a block station, the signalman must notify the signalman at the next block station in each direction, and must not report that train clear of the block until he has ascertained that the train is complete.

324. Should a train in two or more parts, pass a block station, the signalman must stop all trains running in the same direction and notify the signalman at the next block station in advance. A signalman having received this notice must stop any train running in the opposite direction. The Stop-signal must not be displayed to the engineer of the parted train if the train can be admitted to the block in advance under Block Signal Rules; but the Train-parted Signal must be given. Should a train in either direction

be stopped, it may be permitted to proceed when it is known that its track is not obstructed.

325. A signalman informed of any obstruction in a block must immediately notify the signalman at the other end of the block and each must display Stop-signals to all trains that may be affected and must not permit any train to proceed until it is known that its track is not obstructed.

326. When a train takes a siding the signalman must know that it is clear of the block before giving "2" or displaying a Clear-signal for that block.

The signalman must obtain control of the block before permitting a train on a siding to re-enter the block.

326 (A). When a train takes a siding it must not again enter the block without first receiving Form A, part (U), from the signalman, with authority to do so. If the telephone at the outlet switch is inoperative, this form must be procured at the telegraph station from the signalman. If the outlet switch is operated from an interlocking plant, trains may proceed under signal indication without Form A.

327. To permit a train to cross over or return, unless otherwise provided, the signalman must examine the block record, and if all the blocks affected are clear of approaching trains

he must arrange with the signalman at the next block station in each direction to protect the movement, and when the proper signals have been displayed permission may be given. Until the block is clear no train must be admitted in the direction of the cross-over switches except under a Caution-signal or with a Form A, part (A), line 3.

328. When, as provided in Rule 364, coupled trains have been separated, the signalman must regard each portion as an independent train.

329. If necessary to stop a train for which a Clear or Caution Home (or Advance) Block Signal has been displayed and accepted, the signalman must give hand signals in addition to displaying the Stop-signal.

330. A signalman having orders for a train must display the block signal at Stop and, in addition, a red flag by day and a red light by night. He may permit trains so stopped to proceed under Block Signal Rules after complying with Rules for Movement by Train Orders.

331. If, from the failure of block signal apparatus, the block signal cannot be changed from the normal indication, a signalman having information from the signalman at the next block station in advance that the block is clear, may admit a train to the block by the use of a Form A, part (R); or if the block is occupied

by a train, other than an opposing train or a passenger train, he may admit a following train by the use of a Form A, part (R).

332. If, from any cause, a signalman be unable to communicate with the next block station in advance, he must stop every train approaching in that direction. Should no cause for detaining the train be known, it may then be permitted to proceed with a Form A, part (Y), provided it has such right under the rules, and the spacing time required at such station has elapsed since the passage of the last preceding train.

333. Signalmen must have the proper appliances for hand signaling* ready for immediate use. Hand signals must not be used when the proper indication can be displayed by the block signals, except as provided in Rule 329, 342 or 375. When hand signals are necessary they must be given from such a point and in such a way that there can be no misunderstanding on the part of engineers or trainmen as to the signals, or as to the train or engine for which they are given.

334. Signalmen will be held responsible for the care of the block station, lamps and supplies; and of the signal apparatus, unless provided for otherwise.

*Hand signaling includes the use of lamp, flag, torpedo and fusee signals.

335. Lights within block stations must be so placed that they cannot be seen from approaching trains.

336. Lights must be used upon all block signals from sunset to sunrise and whenever the signal indications cannot be clearly seen without them.

337. If a train over runs a Stop-signal, the fact must be reported to the Superintendent by wire. Before the train proceeds the conductor must receive from the signalman two copies of Form A, part (A), line 3.

338. If a Stop-signal is disregarded, the fact must be reported to the next block station in advance and then to the Superintendent by wire.

339. To open a block station the signalman must give "8" to the next block station in each direction and record the trains that are in the extended block. He must then display the normal signal indication and notify the next block station in each direction that the block station is open.

When trains, which were in the extended block when the block station was opened and which had passed his block station before it was opened, clear the block in advance he must repeat the record to the next block station in the rear.

340. A block station must not be closed except upon authority of the Superintendent.

341. A block station must not be closed until the block in each direction is clear of all trains.

To close a block station, the signalman must give "10" to the next block station in each direction, and when he receives "13," enter it on his block record, with the time it is received from each block station.

The block signals must then be secured in the clear position, all signal lights left burning and the block wires arranged to work through the closed block station.

342. When a block station is open at an irregular hour, signalmen must use hand signals, in addition to block signals, to give the required indications until all trains have passed which have not been notified by train order or by special instructions that the block station is open. Signalmen must take special precautions to call the attention of trains approaching the block station to the indications of the block signals.

343. Signalmen must not permit unauthorized persons to enter the block station.

344. At block stations where the signalman is also agent, and is required to attend trains making a regular stop, or when trains stop at stations for water, freight, or to take or leave

cars, the normal position of the signal must not be changed. The signalman must have ready, and deliver to conductor and engineer, Form A, part (A), line 3, upon receipt of which the train may proceed, provided it has such right under the rules.

345. At starting and junction points, trains must not enter on the main track until the Clear signal is given. This signal must not be given until the train has been protected on the track it is to enter upon or cross. Where such movements occur in locations protected by block signal stations, the signalman will arrange for the same in accordance with Rule 327.

346. Signalmen must frequently observe the block signal, and be sure that the proper indication is displayed.

347. Signalmen must observe the classification signals carried by trains. In reporting trains to the train dispatcher, the departing time must be followed by the letters "G S," "N S" or "W S," as the case may be. (These letters may be omitted where trains are run by "Signal Indication.")

348. Special rules for the spacing of trains, at variance with Rule 317, must be typewritten or printed and conspicuously posted in the block stations at the points where such variances apply.

Locomotive Engineers and Trainmen.

361. Block signals for a track apply only to trains running with the current of traffic on that track.

361 (A). Trains using a track against the current of traffic must get a Form A at each block station authorizing them to use that track to the next block station in advance.

362. Trains must not pass a Stop-signal without receiving a Form A, or a train order authorizing them to do so.

363.—

364. Unless directed by special instructions, when two or more trains have been coupled and so run past any block station, they must be uncoupled only at a block station and the signalman notified.

365. When a train takes a siding it must not again enter the block without the permission of the signalman.

366. When it is necessary for a train to cross over, the conductor before crossing or returning, must notify the signalman and obtain permission to do so.

367. Locomotive engineers and trainmen must not proceed on hand signals as against block signals.

368. The locomotive engineer of a train which has parted must sound the whistle signal for Train-parted on approaching a block station.

369. A locomotive engineer receiving a Train-parted signal from a signalman must answer by the whistle signal for Train-parted.

370. When a parted train has been recoupled the signalman must be notified.

371. If there is an obstruction between block stations notice must be given to the nearest block signalman.

372. If a train is held by a block signal, the conductor must immediately ascertain the cause.

373. Conductors must report to the Superintendent any unusual detention at block stations.

374. A block station must not be considered as closed, except as provided on time-table or by special instructions.

375. When a block station is open at an irregular hour, the required block indications will be given by hand signals, in addition to block signals, until all trains have passed which have not received a train order or special instructions that the block station is open.

376. When a train has run by a Stop-signal, the train must not be backed. Upon receipt from the signalman of two copies of Form A,

part (A), line 3, the conductor must know that one is delivered to the locomotive engineer, and will then personally direct him to proceed.

377. At a block station where the signalman is absent or incapacitated, so that instructions cannot be obtained, trains must wait five minutes and then proceed, under the rules, with caution to the next block station, where the conductor must report accordingly to the Superintendent by wire.

378. Between sunset and sunrise, conductors and locomotive engineers must observe that the signal light is burning at all block or train order telegraph stations. The absence of a light is a signal improperly displayed, and the train must be stopped, the cause ascertained, when practicable, and reported to the Superintendent by wire from the next telegraph station stop.

379. Yard engines must clear the time of passenger trains ten minutes, and the conductor must notify the nearest block station when the engine is clear of the main tracks, and not occupy any main track again until he has the permission of the signalman in each case, and the signalman will display a Caution-signal for trains, other than passenger, approaching upon that track.

Yard engines must not enter a block while a passenger train is in the block.

CONTROLLED MANUAL BLOCK SYSTEM.*

A series of consecutive blocks controlled by block signals operated manually upon information by telegraph, telephone or other means of communication, and so constructed as to require the co-operation of the signalmen at both ends of the block to display a Clear or a Caution Block Signal.

Requisites of Installation.

The requisites of installation are the same as those prescribed for Manual Block System, with the following addition:

6. The apparatus so constructed that the failure of the block signal, block signal instruments or electric circuits will prevent the display of a Clear Block Signal (or a Caution Home or Advance Block Signal).

Adjuncts.

The adjuncts are the same as those prescribed for Manual Block System, (A) to (F) inclusive, with the following additions:

(G) Track instruments or releasing circuits so located as to require that the rear of train shall have passed a prescribed distance beyond the Home Block Signal before the signal at the next block station in the rear can be released.

* Controlled Manual Block System Rules will not be effective except by special instructions.

- (H) Unlocking circuits between block stations and outlying switches.
- (J) Track circuits.

CONTROLLED MANUAL BLOCK RULES.

Manual Block Rules Nos. 301 to 379 inclusive, are in effect, except Rules Nos. 317 (B), 318 (B), 320 and 323, for which are substituted the following:

417 (B). (For absolute block for opposing and permissive block for following movements on the same track.)

To admit a train to a block, the signalman must examine the block record, and, if the block is clear, give "3 for.....Eng....." or "36 forEng....." to the next block station in advance. The signalman receiving this signal, if the block is clear, must display the Stop-signal to opposing trains, unlock the next block station in the rear and reply "2 for.....Eng.....". If the block is not clear he must reply "5 of..... Eng....." or "56 of.....Eng....." The signalman at the entrance of the block must then display the proper signal indication.

To permit a train to follow a train other than a passenger train into a block, the signalman must give "17 for.....Eng....." to the next

block station in advance. The signalman receiving this signal, if there is no passenger train in the block, must unlock the next block station in the rear and reply "5 of.....Eng....." The approaching train will then be admitted to the block under Caution-signal and the spacing rule in force at the block station, and the signalman must report its movement as per Rule 319.

418 (i3). (For permissive block for following movements on double track.)

To admit a train to a block, the signalman must examine the block record, and, if the block is not occupied by a passenger train, give "3 forEng.....," or "36 for.....Eng.....," to the next block station in advance. The signalman receiving this signal, if the block is clear, must unlock the next block station in the rear and reply "2 for.....Eng....." If the block is not clear, he must reply "5 of.....Eng.....," or "56 of.....Eng....." The signalman at the entrance of the block must then display the proper signal indication.

A train may be permitted to follow a train other than a passenger train into a block under Caution-signal, in accordance with the spacing rule in force at the block station, and the signalman must report its movement as per Rule 319.

420. Unless otherwise provided, signalmen must not ask for the block until they have

received "4" or "46" from the next block station in the rear, nor unlock the next block station in the rear until the block is asked for by that block station.

423. Should a train, without markers, pass a block station, the signalman must notify the signalman at the next block station in each direction, and must not report that train clear of the block, nor unlock the next block station in the rear, until he has ascertained that the train is complete.

AUTOMATIC BLOCK SYSTEM.*

A series of consecutive blocks controlled by block signals operated by electric, pneumatic or other agency, actuated by a train or by certain conditions affecting the use of a block.

Requisites of Installation.

1. Signals of prescribed form, the indications given by not more than three positions; and, in addition, at night by lights of prescribed color.
2. The apparatus so constructed that the failure of any part controlling the Home Block Signal will cause it to indicate—Stop.
3. Signals, if practicable, either over or upon the right of and adjoining the track upon which trains are governed by them. For less than three tracks, signals for trains in each direction may be on the same signal mast.
4. Semaphore arms that govern, displayed to the right of the signal mast as seen from an approaching train.
5. The control of block signals so arranged that the Home Block Signal in the direction of approaching trains will indicate Stop when:

*Rules 501 to 510 inclusive, will not be effective except by special instructions.

- (a) Switches are not set for main track.
- (b) Switches leading to main track are not set for siding.
- (c) Derails in siding are not set to protect main track.
- (d) Cars on siding are not placed clear of insulated joints or fouling.

6. Signal connections and operating mechanism so arranged that a Home Block Signal will indicate Stop after any part of a train shall have passed it.

Adjuncts.

(B) Track circuits.

(C) Indicators at:

- (a) Cross-over switches in main tracks.
- (b) Siding switches leading to main tracks.
- (c) Derailing switches leading to main tracks where not connected with main switches.
- (d) Switches in main track leading to sidings, where siding derails are connected to operate with main switches.

(D) Electric locks controlling main track switches, arranged so that when block is obstructed, switches cannot be unlocked.

Signal.		Occasion For Use.	Indication.	Name.
*Color.	Position.	The signal will appear when	For engineers and trainmen.	As used in rules.
Red.	Horizontal.	Block is not Clear.	Stop.	Stop-signal.
Green.	Diagonal.	Block is Clear. Second block in advance is not Clear	Approach next home signal prepared to stop.	Caution-signal.
White.	Vertical.	Clear.	Proceed.	Clear-signal.

* Where special instructions provide, Yellow indicates Caution; Green indicates Clear.

Where the semaphore is used, the governing arm is displayed to the right of the signal mast as seen from an approaching train, and the indications are given by positions.

Where a single disc is used for two indications, these are given by position of Red or Green discs, as seen from an approaching train.

Red disc displayed as the equivalent of Red.

Green disc displayed as the equivalent of Green.

Red disc withdrawn as the equivalent of White.

Green disc withdrawn as the equivalent of White.

502. Block signals control the use of the blocks, but, unless otherwise provided, do not supersede the superiority of trains; nor dispense

with the use or the observance of other signals whenever and wherever they may be required.

503. Block signals for a track apply only to trains running with the current of traffic on that track.

504. When a train is stopped by a block signal, it may proceed when the signal is cleared. If not immediately cleared, it may proceed—

(A) On single track, preceded by a flagman to the next Clear-signal:

Or—

(B) On double track, at once with caution.

(C) At single track tunnels, after five minutes have elapsed, preceded by a flagman a sufficient distance to insure protection.

505. When a block signal is out of service, the arm will be removed and no light will be displayed at night, the fact being indicated by special instructions. Trains finding a block signal out of service must, unless otherwise directed, proceed with caution to the next block signal.

506. When a train is stopped by a block signal which is evidently out of order, and not so indicated, the fact must be reported on Form 910-A.

507. Lights must be used upon all block signals from sunset to sunrise, and whenever the

504. (D) At once in accordance with the indication displayed by the arm, when the light is extinguished, and the arm is plainly seen to indicate proceed.

INTERLOCKING PLANT—An assemblage of switch, lock and signal appliances, interlocked.

INTERLOCKING STATION—A place from which an interlocking plant is operated.

FIXED SIGNAL—A signal of fixed location indicating a condition affecting the movement of a train.

INTERLOCKING SIGNALS—The fixed signals of an interlocking plant.

HOME SIGNAL—A fixed signal at the point at which trains are required to stop when the route is not clear.

DISTANT SIGNAL—A fixed signal used in connection with a home (and advance) signal to regulate the approach thereto.

ADVANCE SIGNAL—A fixed signal used in connection with the home signal, to facilitate the movements within an interlocking plant.

DWARF SIGNAL—A low fixed signal.

Requisites of Installation.

1. Signals of prescribed form, the indications given by not more than three positions, and, in addition, at night by lights of prescribed color.

1 (A). A distinctive position of the arm for the caution approach indication.

2. The apparatus so constructed that the failure of any part directly controlling the signal will cause it to display the normal indication.

3. Signals, if practicable, either over or upon the right of and adjoining the track to which they refer.

4. Semaphore arms that govern, displayed to the right of the signal mast, as seen from an approaching train.

5. The normal indication of Home and Advance Signal—Stop.

6. The interlocking of signals with switches, locks, railroad crossings, or drawbridges, so that a clear or caution indication at a home signal cannot be given unless the route to be used is clear and stop signals displayed for all conflicting routes.

7. Interlocked levers, or their equivalent, by which switches, locks and signals are operated.

8. The interlocking of switches, locks, railroad crossings, drawbridges and signals through levers, or their equivalent.

9. The apparatus so constructed that the failure of any part directly controlling a switch or lock will prevent the display of a clear or caution indication at the Home or Advance Signal.

10. Facing point locks, for all facing point switches in main routes.

11. Detector bars, or their equivalent, for all facing point switches in main routes.

12. Pipe, or its equivalent, compensated for changes in temperature, for connecting levers, in mechanical interlocking, with switches and locks.

13. Latch locking, or its equivalent.

14. The established order of interlocking such that:

A clear or caution indication at a Home Signal cannot be displayed until derails or diverging switches, if any, in conflicting routes are in their normal position, and the switches for the required route are set and locked.

The display of a clear or caution indication at the Home Signal shall lock all switches and locks in the route as far as the point to which such signal gives permission to proceed, locking all opposing or conflicting signals and releasing the corresponding Distant Signal, where such signal is used.

Where Distant Signals are used, the display of a clear Distant Signal shall affect the same locking as that accomplished by the display of a clear or caution indication at the Home Signal.

15. Interlocking and Block Signals, interconnected, where both are operated from the same station.

Adjuncts.

The following adjuncts may be used if desired:

- (A) Distant Signals interlocked with Home and Advance Signals, normal indication—Caution.
- (B) Advance Signals interlocked with Distant Signals, normal indication—Stop.
- (C) Dwarf Signals, normal indication—Stop.
- (D) Bolt locking of switches, or its equivalent, by signal connections.
- (E) Derails, or diverging switches, for railroad crossings, drawbridges, junctions, and in sidings connected with the running tracks, normal position—Open.
- (F) Electric locking of derails, facing point switches and drawbridges, so that they cannot be opened after a train has passed the clear Distant Signal until the train has passed over them.
- (G) Detector bars, or their equivalent, at railroad crossings and junctions.
- (H) Repeaters, audible or visible, to indicate the position of signals to the signalman operating them.
- (J) Annunciators indicating the approach of a train, or for other purposes.

(K) Route Indicators.

(L) Torpedo Placers.

(M) Screw Release.

601.

HOME SIGNALS.

Signal.		Occasion For Use.	Indication.	Name.
*Color.	Position.	Displayed when	For engineers and trainmen.	As used in Rules.
Red.	Horizontal.	Route is not Clear.	Stop.	Stop-signal.
Green.	Diagonal.	Route is not Clear.	Proceed with caution.	Caution-signal.
White.	Vertical.	Route is Clear.	Proceed.	Clear-signal.

DISTANT SIGNALS.

Signal.		Occasion For Use.	Indication.	Name.
*Color.	Position.	Displayed when	For engineers and trainmen.	As used in Rules.
Green.	Diagonal.	Home signal at Stop.	Proceed prepared to stop at home signal.	Caution-signal.
White.	Vertical.	Home signal at Proceed.	Proceed.	Clear-signal.

* Where special instructions provide, Yellow indicates Caution; Green indicates Clear.

Where the semaphore is used, the governing arm is displayed to the right of the signal mast,

as seen from an approaching train; the indications are given by position.

602. Interlocking Signals, unless otherwise provided, do not supersede the superiority of trains, nor dispense with the use or the observance of other signals whenever and wherever they may be required.

Signalmen.

611. The normal indication of Home and Advance Signals is Stop; of Distant Signals, Caution.

612. Levers, or other operating appliances, must be used only by those charged with that duty and as directed by the rules.

613. Signal levers must be kept in the position displaying the normal indication, except when signals are to be cleared for an immediate train or engine movement.

614. When the route is clear the signals must be cleared sufficiently in advance of approaching trains to avoid delay.

615. Signals must be restored so as to display the normal indication as soon as the train or engine for which they were cleared has passed the signal.

616. If necessary to change any route for which the signals have been cleared for an ap-

proaching train or engine, switches must not be changed or signals cleared for any conflicting route until the train or engine, for which the signals were first cleared, has stopped.

617. A switch or facing point lock must not be moved when any portion of a train or engine is standing on, or closely approaching, the switch or detector bar, unless the movement of such switch will lessen the liability of accident. Signals may be taken away from a train at any time, provided anything is discovered that will endanger its movement, and every effort must be made to avoid accident.

618. Levers must be operated carefully and with a uniform movement. If any irregularity, indicating disarranged connections, is detected in their working, the signals must be restored so as to display the normal indication, and levers must not be forced.

Levermen will be held responsible for any damage occasioned by rough handling.

618 (A). During the night, signals must be observed frequently to ascertain whether the lights are properly displayed, and in case signal lights are extinguished, they must be relighted at the first opportunity.

619. During cold weather, the levers must be moved frequently to keep connections from freezing.

620. If a signal fails to work properly, its operation must be discontinued and the signal secured so as to give the normal indication, until repaired.

621. Signalmen must observe, as far as practicable, whether the indications of the signals correspond with the positions of the levers.

622. Signalmen must not make nor permit any unauthorized repairs, alterations or addition to the plant.

623. If there is a derailment or if a switch is run through, or if any damage occurs to the track or interlocking plant, the signals must be restored so as to display the normal indication, and no train or switching movement permitted until all parts of the interlocking plant and track liable to consequent injury have been examined and are known to be in a safe condition.

624. If necessary to disconnect a switch from the interlocking apparatus, the switch must be securely fastened.

625. During storms or while snow is drifting, special care must be used in operating switches. If the force whose duty it is to keep the switches clear is not on hand promptly when required, the fact must be reported to the Superintendent.

626. When switches or signals are undergoing repairs, signals must not be displayed for any movements which may be affected by such repairs,

until it has been ascertained from the repairman that the switches are properly set for such movements.

627. Signalmen must observe all passing trains and note whether they are complete and in order; should there be any indication of conditions endangering the train, or any other train, the signalman must take such measures for the protection of trains as may be practicable.

628. If a signalman has information that an approaching train has parted he must, if possible, stop trains or engines on conflicting routes, clear the route for the parted train and give the Train-parted signal to the locomotive engineer.

629 (A). Signalmen must have the proper appliances for hand signaling* ready for immediate use. Hand signals must not be used when the proper indication can be displayed by the interlocking signals. When hand signals are necessary they must be given from such a point and in such a way that there can be no misunderstanding on the part of the locomotive engineer or trainmen as to the signals, or as to the train or engine for which they are given.

629 (B). If from any failure of the automatic block signal apparatus at an interlocking station, where the Home or Advance Block Signals are also used as automatic block signals, and such

*Hand signaling includes the use of lamp, flag, torpedo and fusee signals.

signals cannot be changed from the normal indication, a signalman may admit a train to the block:

- (a) By the use of Form A.
- (b) By the Low-speed Signal.
- (c) Or per Rule 629 (A).

630. If necessary to discontinue the use of any interlocking signal, hand signals must be used and the Superintendent notified.

631. Signalmen will be held responsible for the care of the interlocking station, lamps and supplies; and of the interlocking plant, unless provided for otherwise.

632. Lights in interlocking stations must be so placed that they cannot be seen from approaching trains.

633. Lights must be used upon all interlocking signals from sunset to sunrise and whenever the signal indications cannot be clearly seen without them.

634. If a train or engine over runs a Stop-signal the fact, with the number of train or engine, must be reported to the Superintendent.

635. Signalmen must not permit unauthorized persons to enter the interlocking station.

636. Any defects discovered in the interlocking machine must be promptly reported to the Superintendent.

637. During the day, if a signal arm breaks off, all movements governed by such signal must be made by hand signal, through the limits of the interlocking, and the Superintendent and repairmen must be promptly notified.

638. At night, if colored glasses are broken, the regular lamp must be taken down and hand lamps of the proper color (indicating caution or stop as required) must be substituted. Signals must not be changed from the normal position until repairs have been made, and trains must be moved through the limits of the interlocking under hand signal.

639. When necessary to use signals in accordance with Rules 637 and 638, a green flag by day and a green light by night shall be used.

Locomotive Engineers and Trainmen.

661. Trains or engines must be run to, but not beyond, a signal indicating stop, except as provided in Rule 663.

662. If a Clear or Caution-signal, after being accepted, is changed to a Stop-signal before it is reached, the stop must be made at once. Such occurrence must be reported to the Superintendent.

663. Locomotive engineers and trainmen must not proceed on hand signals as against inter-

locking signals until they are fully informed of the situation and know that they are protected.

Trainmen must not give proceed hand signals which conflict with interlocking signals.

664. The locomotive engineer of a train which has parted must sound the whistle signal for Train-parted, on approaching an interlocking plant.

665. A locomotive engineer receiving a Train-parted signal from a signalman must answer by the whistle signal for Train-parted.

666. When a parted train has been recoupled the signalman must be notified.

667. Sand must not be used over movable parts of an interlocking plant.

668. Conductors must report to the Superintendent any unusual detention at interlocking plants.

669. Trains or engines stopped by a signalman in making a movement through an interlocking plant, must not move in either direction until they have received the proper signal from him.

Repairmen.

681. Repairmen are responsible for the inspection, adjustment and proper maintenance of all the interlocking plants assigned to their care.

682. When the condition of switches or track does not admit of the proper operation or maintenance of the interlocking plant, the fact must be reported to the Superintendent.

683. When any part of an interlocking plant is to be repaired, a thorough understanding must first be had with the signalman, in order to secure the safe movement of trains and engines during repairs. The signalman must be notified when the repairs are completed.

684. If necessary to disconnect any switch it must be securely fastened before any train or engine is permitted to pass over it.

685. Alterations or additions to an interlocking plant must not be made unless authorized by the Signal Engineer.

686. Repairmen, when on duty, or subject to call, must keep signalman at their headquarters advised as to their location, and respond promptly when called.

RULES GOVERNING TRAIN MOVEMENT BY TELEPHONE, AND STANDARD EQUIP- MENT FOR THIS PURPOSE.

701. Where the telephone, instead of the telegraph, is used for the movement of trains, the rules and regulations governing the movement

of trains by telegraph must be complied with, and in addition thereto, in every instance, the following must be observed:

702. In transmitting or repeating a train order by telephone, it must be spelled letter by letter, and where figures are used they must be duplicated, naming each figure separately; for example "f-i-f-t-y-f-i-v-e" (followed by the words "five" "five"), "s-i-x-t-y-f-i-v-e" (followed by the words "six" "five"), "o-n-e h-u-n-d-r-e-d and f-i-v-e" (followed by the words "one" "O" "five"). Where two ciphers occur, as in 100, the duplication shall be "one double O"; 1000 shall be "one triple O."

703. To relay a "31" train order, the train dispatcher must transmit it to the relaying point, where it must be transmitted to destination. The receiver must repeat it to the relaying point, and each word must be underlined by the receiver at that point. It must then be repeated to the Superintendent, and, if correct, the train dispatcher will respond "O. K." After the parties addressed at the point of destination have signed the order, the signatures must be transmitted to the relaying office, and from there to the Superintendent, and "complete" will be given by the train dispatcher, as per Rule 210, and relayed to destination.

704. To relay a "19" train order, the train dispatcher must transmit it to the relaying point, where it must be transmitted to destination. The receiver must repeat it to the relaying point, and each word must be underlined by the receiver at that point. It must then be repeated to the Superintendent, and, if correct, "complete" will be given by the train dispatcher as per Rule 211, and relayed to destination.

When a train order is to be copied by one of a train crew, the train dispatcher must send the order separately to each train, and when repeated to the relaying office, the train and engine number must accompany it and be relayed to the Superintendent.

705. A copy of every completed order must be filed at the point received, bearing the name of the person receiving and repeating the order.

706. Train order blanks and Form A used at non-telegraph stations, may be printed upon paper with carbonized back.

707. When a train enters a siding in a block, and is clear of the main track, it must be so reported to the signalman by telephone. This report must give the train and engine number, and the time it cleared, which must be entered upon the block record at the block station.

When this report is received at the block station, the block between it and the next block

station in the rear will be considered clear of such train, and other trains may be allowed to proceed.

708. A train may proceed on a passing siding to the outlet switch and will report its arrival to the signalman. The signalman may arrange for its further movement by the use of Form A, which may be telephoned.

709. When a train reaches a block station and enters the siding for the purpose of meeting an opposing train, or allowing a train to pass in the same direction, the signalman may let the train proceed on the siding to the outlet switch, at which point Form A may be issued by telephone.

710. At non-telegraph stations, where the telephone is used for the transmission of train orders (if there is no proper place in the station), a booth must be furnished, with dimensions of not less than $3\frac{1}{2} \times 3\frac{1}{2} \times 6\frac{1}{2}$ feet, having a window, and a bracket lamp, a shelf convenient to the telephone, upon which to write while standing, and receptacles beneath the shelf for stationery. It must also have a box for the deposit of copies of completed train orders taken at that point, which shall be kept under lock and key. These copies must be collected and sent to the Superintendent weekly who will at once have them

compared with the original orders. The conductor must mail to the Superintendent his copy of each order after it has been fulfilled. The telephone equipment shall consist of the ordinary signaling and transmitting devices employed in standard telephony, and a head telephone.

The booth must be locked with a switch lock.

GENERAL REGULATIONS FOR EMPLOYES.

TRAIN MASTERS.

801. The Train Master reports to the Superintendent.

It is his duty to take charge of the movement of the traffic; exercise supervision over the men employed on the trains, see that they understand and observe the rules, and discipline them when necessary for neglect of duty, in case of detention of trains by accident, or obstruction, go to the place if necessary, take general charge of clearing the road, and see that proper precautions are taken to insure the safety of trains and property.

Assistant Train Masters, in the duties or districts assigned, have the same authority as the Train Master.

STATION MASTERS.

802. The Station Master reports to the Superintendent.

He has charge of the passenger station and station employes where he is located.

It is his duty to see that the station is kept in proper condition, preserve order about the station, and prevent confusion and delay in seating passengers and receiving and delivering baggage, and attend courteously to the comfort and wants of passengers and see that employes do the same. He must see that the cars in trains starting from his station are inspected, cleaned and properly equipped; that the trainmen are ready for duty at the appointed time, with the necessary signal and other appliances, and that the trains are properly made up, and leave on time.

PASSENGER CONDUCTORS.

803. The Passenger Conductor reports to the Train Master.

He must obey the orders of the Station Masters and of the Ticket Receivers, and conform to instructions issued by the Accounting, Passenger and Treasury Departments.

He must report for duty at the appointed time with his trainmen; assist in making up his train when necessary; see that the engine and train are supplied with full sets of signals, and ascertain that the cars have been cleaned, inspected and

properly equipped, and that the brakes and other appliances are in proper order.

He must have a reliable watch and a copy of the time table; examine the General Order board before each trip, and compare time with the Locomotive Engineer before starting.

He must show his train orders to his Flagman.

The Conductor is responsible for the movement, safety and proper care of his train, and for the vigilance and conduct of the men employed thereon, and must report any misconduct or neglect of duty.

It is his duty to ascertain that passengers are provided with tickets, collect fare from those who are not, and put off, at a convenient station, any who refuse to pay fare; attend courteously to the comfort and wants of passengers, and see that his trainmen do the same; see that passengers are properly seated, and not allow them to ride on the platforms or in the baggage, express or mail cars, or violate, in any respect, the regulations provided for their safety; and maintain good order, and not allow drunken or disorderly persons to get on the train.

PASSENGER BRAKEMEN.

804. The Passenger Brakeman reports to the Train Master.

While on duty he is under the direction of the Conductor. At stations he must obey the orders of the Station Master.

It is his duty to attend to the brakes; take care of and properly display train signals; attend to the lighting, heating and ventilation of the cars; open and close the car doors, and assist the Conductor in the proper disposition of the passengers, and in preventing them from riding on the platforms, or in any way violating the regulations provided for their safety, in preserving order, and in all things requisite for the prompt and safe movement of the train and the comfort of the passengers.

He must report for duty at the appointed time; assist in making up his train if necessary; give polite attention to the wants of passengers, avoiding unnecessary conversation. When necessary to pass through sleeping cars, do so quietly, so as not to disturb passengers; announce at each stopping place the name of the station and the length of the stop, if more than two minutes.

The post of the Brakeman is on the last car of the train. He must immediately go back to protect the train in cases where the rules require it, without waiting for signals or instructions to do so, and if the train should part, the Brakeman must immediately stop the rear portion and send

forward the most reliable person he can secure to make stop signals until the front portion comes back, while he protects the rear.

BAGGAGEMEN.

805. The Baggage man reports to the Train Master.

While on duty he is under direction of the Conductor. At stations he must obey the orders of the Station Master. He must conform with the instructions issued by the Accounting and Passenger Departments.

It is his duty to receive, take care of and correctly deliver baggage carried on the train; check baggage at stations where there are no baggage agents; collect, report and remit the proper charge for excess over the amount of baggage allowed each passenger; take charge of and promptly deliver letters and packages forwarded on railroad business or addressed to Officers or Agents; attend to the heat and light in the baggage cars while on duty.

He must report for duty at the appointed time; handle baggage carefully; be civil and obliging to passengers, and remain in the baggage car while on duty, except when required to take the place of the Brakeman.

He must not carry letters, packages, money or other valuables not authorized by the regulations nor receive any perquisite for the transportation of any article except such as he may be authorized to take charge of at fixed rates for special care; and he must not permit anyone to ride in the baggage car except mail agents, express agents, and news agents, in the discharge of their duty.

YARD MASTERS.

806. The Yard Master reports to the Train Master.

He has charge of the yards, of the men employed, and the movement of trains and distribution of cars therein.

It is his duty to see that Trainmen and engines are ready for duty at the appointed time; that trains are properly made up and leave on time; that Conductors are furnished with waybills for cars leaving; that waybills are received from cars arriving; that doors of loaded cars are properly secured; that cars are inspected and those needing repairs sent to the shops; that cars are not unnecessarily delayed in the yard, and that records and reports are made in accordance with instructions.

trainmen occupy their proper places on the train; handle freight with care, using every effort to prevent loss or damage; keep the car doors fastened, except when loading or unloading, and not permit unauthorized persons to enter the cars or handle freight or ride upon the train.

He must not move cars from stations without proper waybills and must see that the cars are in safe condition to be moved. When necessary to move the cars on station or loading tracks, he must see that persons loading or unloading cars thereon are notified before the cars are moved. He must show his train orders to his Flagman.

He must compare time with his Brakeman and give the latter an opportunity to read train orders and see that they are correctly understood.

FREIGHT BRAKEMEN.

808. The Freight Brakeman reports to the Train Master.

He must obey the orders of the Yard Master. When on duty he is under the direction of the Conductor.

It is his duty to attend to the brakes; be provided with, take care of and properly display train signals; assist the Conductor in loading or

unloading the freight, in inspecting the cars, and in doing all things necessary for the safe and prompt movement of the train.

He must examine and know that the brake shafts and attachments, ladders, running boards, steps, hand holds and other parts and mechanical appliances which he is to use, are in proper condition; if not, put them so, or report them to the proper parties and have them put in order before using.

He must report for duty at the appointed time and when necessary, assist in making up his train.

When not engaged in duty elsewhere, he must occupy the post assigned to him. The post of the rear Brakeman (or Flagman) is on the last car. He must immediately go back to protect the train where the rules require without waiting for signals or instructions to do so. The front Brakeman must in like manner protect the front of the train, when the Fireman cannot leave the engine; and if the train should part, the Flagman must immediately stop the rear portion and send forward the most reliable person he can secure to make stop signals until the front portion comes back, while he protects the rear. An assisting engine on the rear is a part of the train, and a Flagman will be governed accordingly.

Brakemen must stop their trains at stations and control them in descending heavy grades, without

waiting for a signal from the Locomotive Engineer, and must be careful to avoid the sliding or heating of the wheels.

When on duty he is under the direction of the Conductor, or under the Locomotive Engineer in the absence of the former.

Brakemen will be required to ride out approaching all passing sidings, descending all grades and approaching railroad crossings.

SWITCH TENDERS.

809. The Switch Tender reports to the Train Master. In yards he is under the direction of the Yard Master or Station Master.

It is his duty to operate the switches under his charge for trains using them; to keep the switches in good condition and clear of snow or other obstruction, and promptly report defects.

He must keep the switches secure for the main track except when passing trains to or from another track, and must watch for approaching trains and give the Proceed-signal if all is right.

Where day and night Switch Tenders are employed one must not leave his post until relieved by the other, and the one going off duty must inform the one coming on of trains due which have not passed.

LEVERMEN.

810. The Leverman reports to the Train Master. In yards he is under the direction of the Yard Master or Station Master. He must conform to the instructions of the Signal Supervisor and, if an Operator, to the instructions of Division Operator.

It is the duty of the Leverman to operate the levers under his charge and keep them in good condition. He must see that the switches are in good condition and clear of snow or other obstructions and promptly report defects.

He must keep the switches secured on the main track, except when passing trains to or from another track, and must watch for approaching trains and give the Proceed-signal if all is right.

Where day and night Levermen are employed, one must not leave his post until relieved by the other, and the one going off duty must inform the one coming on of trains due which have not passed.

STATION AGENTS.

811. The Station Agent reports to the Superintendent and must conform to the instructions issued by the Passenger, Freight, Accounting and Treasury Departments.

A Station Agent at an important station is required to devote his time exclusively to the business of the Company; at less important points the Agent may be permitted to engage in other business when it does not interfere with the proper discharge of his duties. The Station Agent has charge of the Company's books and papers, and of the buildings, sidings and grounds at his station, and must preserve order in and about the station and keep the buildings and grounds in proper condition.

It is his duty to attend to the sale of tickets and the receiving, delivering and forwarding of freight, and collections for the same; see that cars are properly loaded or unloaded and forwarded; keep the accounts, and make reports and remittances; in the manner prescribed.

He has charge of the employes at the station and must see that they perform their duties properly; promptly report to the Superintendent any misconduct or violation of the rules, and anything that is observed that is prejudicial to the Company's interests or may interfere with the safe and economical working of the road.

He must advise the Superintendent of all local matters which may affect the interests of the Company.

He must not sell tickets to persons who are not in a condition to take care of themselves, or whose

conduct might endanger their lives or make them a source of annoyance to others on the train.

He must see that cars left at the station have the brakes applied and are not moved by unauthorized persons, or shifted so as to interfere with the safety of trains.

BAGGAGE AGENTS.

812. The Baggage Agent, reports to the Station Master or the Station Agent, and must conform to the instructions issued by the Passenger and Accounting Departments.

It is his duty to receive and check baggage, and deliver it to the Baggageman on the train; take charge of baggage unloaded at his station; handle the baggage carefully; be civil and obliging to passengers, and require them to show their tickets before checking their baggage, in order to avoid errors in route or destination.

He must keep a supply of the necessary checks, secure them from theft or loss, and promptly return those belonging to other stations.

DIVISION OPERATORS.

813. The Division Operator must conform to the instructions issued by the Superintendent of

Telegraph. He will report to the Division Superintendent.

He is responsible for the condition and proper working of the wires and instruments, the prompt transmission of messages, and the economical use of supplies.

He has immediate charge of the Telegraph Operators and Linemen on his division; will direct them with regard to their duties and see that they understand and perform them, and are provided with the necessary signals and supplies.

TRAIN DISPATCHERS.

814. The Chief Train Dispatcher will report to and obey the instructions of the Superintendent. He will have immediate charge of the Train Dispatchers and perform such duties as are assigned him by the Superintendent.

The Train Dispatcher reports to and must conform to the instructions of the Chief Train Dispatcher.

It is his duty to issue orders for the movement of trains, in the name of the Superintendent; see that they are transmitted and recorded in the manner prescribed; and have a record kept showing the time each train passes each telegraph office, the time the Train Dispatcher and the

Operators in his office go on and off duty, and important incidents which occur while he is on duty.

A Train Dispatcher to be relieved by another must not go off duty until so relieved, and he must explain, in writing, to the Train Dispatcher relieving him, the train orders in force, and give other information necessary for his guidance.

In the absence of the Division Operator, the Train Dispatcher is responsible for the department and discipline of the Operators.

Meeting orders must not be sent for delivery to trains at the meeting point if it can be avoided. When it cannot be avoided, special precautions must be taken by the Train Dispatcher to insure safety.

TELEGRAPH OPERATORS.

815. The Telegraph Operator reports to the Division Operator, and in his absence to the Train Dispatcher. An Operator at a station is under the direction of the Station Master or Station Agent.

He is required to be constantly on duty during the hours assigned to him, and must not leave his office without permission. Where both day and night operators are employed, one must not

leave his post until relieved by the other, and one going off duty must inform the one coming on respecting unfinished business and the position of trains.

He must not leave his office when a train is at the station, unless required by business connected with the train.

Each Operator must keep a register of the times at which trains pass his office, and such offices as may be required; give particular attention to the adjustment of his instruments, and be ready at all times to receive train orders; in transmitting, receiving and delivering train orders conform to the prescribed rules; keep a full set of signals, in good order and ready for use, and use them in accordance with the rules, and observe the rear of trains and report at once to the Superintendent and the next telegraph office if the proper signals are not displayed. When orders are sent for delivery to trains at the meeting point, he must take special precautions to insure safety.

The Operator must be courteous in his intercourse with persons transacting business at his office, and must use no improper language over the wire. He must not leave his office in charge of another Operator, without permission, and must not permit employes or others to frequent his office. He must not receive messages to be transmitted free unless signed by or addressed

to an officer, agent or employe, and on each message sent and received must appear the date, the time, the signal and call of the Operator who sent and received it. He must preserve messages sent and promptly deliver those received, and must consider all messages confidential, and not permit them to be read by any person except those to whom they are addressed nor make their contents the subject of conversation or remarks. He must transact the commercial business of the Telegraph Company in accordance with the instructions of the Superintendent of Telegraph.

Should the telegraph line fail at any office for an unusual length of time, the Operator must test the wires and report, if possible, on which side of his office the failure is. If it is at a point which the Lineman cannot reach promptly, the Operator must immediately notify the Track Foreman.

The following signal will be used: "39" for messages of the President, Vice-President, General Manager, General Superintendent of Transportation and General Superintendent, indicating that they have preference over all other business excepting train orders.

The telegraph is not to be used for the transmission of communications which may be sent by train without detriment to the Company's interests, and the Operator should report any such cases observed

LINEMEN.

816. The Lineman reports to the Division Operator.

He must conform to the instructions of the General Foreman.

It is his duty to keep the poles in proper position, the wires connected, insulated and clear of all obstructions, and make all necessary repairs, calling on the Track Foreman for assistance when required. He must keep a diagram and record of the wires, and changes in wires, on his division.

He must frequently pass over the road and observe the condition of the telegraph line and the connections at the offices, and promptly report anything observed that may interfere with the proper working of the line.

He must always be provided with a full set of tools and be ready to respond immediately to any orders he may receive. He must report each morning the part of the road on which he expects to be during the day.

ROAD FOREMEN OF ENGINES.

817. The Road Foreman of Engines reports to the Superintendent.

It is his duty to ride on engines, instruct Locomotive Engineers and Firemen in the performance

of their duties and the economical use of fuel and stores, see that engines are in good working order and properly equipped; know the proper tonnage rating for each class of engine and report if more or less than this tonnage is given them; familiarize himself with the qualifications of Locomotive Engineers and Firemen, and report any violation of rules or neglect of duty which may come to his knowledge.

He must consult with the Master Mechanic and Engine House Foreman respecting the condition and requirements of the engines.

LOCOMOTIVE ENGINEERS.

818. The Locomotive Engineer reports to the Road Foreman of Engines. He must obey the orders of the Train Master in matters relating to the movement and protection of trains. He must obey the orders of the Station Masters and Yard Masters as to shifting and making up trains, and those of Conductors as to starting, stopping and management of trains, unless they endanger the safety of the train or require violation of rules. When at the engine house he is under the direction of the Engine House Foreman.

He shall run his engine with due regard to economy in fuel and use of supplies, and direct the Fireman in regard to same.

He must have a standard watch, a copy of the Time-table and a full set of signals, examine the General Order Board before each trip, and compare time with the Conductor of his train before starting.

He must report for duty at the appointed time; see that the engine is in good working order and furnished with necessary supplies; give checks for fuel and stores received, and assist in shifting and making up the train when required.

He must exercise caution and good judgment in starting and stopping the train, and in moving and coupling cars, so as to avoid disturbance to passengers and injury to persons and property; keep a constant lookout for signals and obstructions; acknowledge all signals except fixed signals; stop and inquire respecting any signal not understood, and report any neglect of duty observed; see that the front of the train is protected, when necessary; use every precaution against fire, and not permit burning waste, hot cinders, or any other thing to be thrown from the engine; clean the ash pan or front end only at points especially designated; report the condition of the engine at the end of each trip and assist in making repairs when called upon.

He must call the indication of signals to the Fireman.

He must show his train orders to the Fireman and also to the front Brakeman when practicable.

He must permit no unauthorized person to ride on the engine.

He must not leave the engine during the trip except in case of necessity, and must then leave the Fireman in charge.

When a train is stopped, or is about to stop, under circumstances that require protection, the Locomotive Engineer must so indicate to the Flag-man by the proper whistle signal. This does not relieve trainmen from the observance of Rule 99.

FIREMEN.

819. The Fireman reports to the Road Foreman of Engines. He must obey the orders of the Train Master in matters relating to the movement and protection of trains, and when at the engine house is under the direction of the Engine House Foreman. When with the engine, the Fireman must obey the orders of the Locomotive Engineer respecting the performance of his duties.

He shall fire his engine properly with due regard to economy in fuel.

The Fireman must report for duty at the appointed time; assist in shifting and making up the train when required; assist the Locomotive Engineer in keeping a lookout for signals and

obstructions; call the indications to the Locomotive Engineer; take charge of the engine during the absence of the Locomotive Engineer and assist in making repairs when required. He must not run an engine in the absence of the Locomotive Engineer, unless in some emergency he is directed to do so by the Conductor or some one in authority. He must be familiar with the rules for the protection of trains and use of signals, which he must be prepared to use promptly.

He must protect the front of the train when necessary.

Firemen shall read all train orders received by the Locomotive Engineer, and must have a correct understanding of them.

MASTER MECHANICS.

820. The Master Mechanic reports to the Superintendent.

In all matters pertaining to standard designs and methods to be followed in the construction, maintenance and repair of equipment, tools and machinery, he shall receive instructions from the Superintendent of Motive Power.

He shall keep a record of all fuel and stores used.

He shall be responsible for the proper and economical management of the shops, and for the discipline and proper discharge of the duties of the persons employed therein, and for the proper condition of engines and cars.

He shall keep a daily record of the time made and rates of pay and earnings of workmen, and of the time employed and quantity and cost of material used in the different classes of work.

He must not allow visitors in the shops without permits, nor allow them to converse or interfere with the workmen.

He must consult with the Road Foreman of Engines respecting the performance of engines.

ENGINE HOUSE FOREMEN.

821. The Engine House Foreman reports to the Master Mechanic.

He must comply with the orders of the Road Foreman of Engines with regard to the assignment of engines and Locomotive Engineers and Firemen.

He has charge of the engine house and the workmen employed therein. It is his duty to see that the engine house is kept clean and in good order; that the workmen perform their

duties; that the supplies are economically used that the engines are prepared for service promptly and are in good working order and properly equipped, and that they are inspected and cleaned and reported for repairs when necessary, and that Locomotive Engineers and Firemen are ready for duty at the required time.

CAR INSPECTORS.

822. The Car Inspector reports to the Master Mechanic, and must comply with the orders of the Station Master or Yard Master.

It is his duty to inspect all cars passing his station; make needed repairs, and send to the shop cars not fit for service.

He must see that cars in passenger trains are properly washed, equipped and warmed; that all the fixtures are clean and in good order and ready for use, and that the load on freight cars, is properly placed, and does not exceed the safe capacity, nor the authorized quantity or dimensions.

When inspecting cars, he must protect himself by placing a blue signal at the end of each car or train in accordance with the rules.

DIVISION ENGINEERS.

823. The Division Engineer reports to the Superintendent.

He shall keep record of the time made, rates of pay and earnings of workmen, and of the time employed, and quantity and cost of material used in the different classes of work.

He shall be responsible for the proper and economical management of his department, and for the discipline and proper discharge of the duties of the persons employed therein, and for the proper condition of right of way, tracks, bridges, and all other structures.

MASTER CARPENTERS.

824. The Master Carpenter reports to the Division Engineer.

He has charge of the repair of bridges, buildings, and other structures, and of the men employed in the maintenance thereof. He has charge of the water stations and is responsible for their operation.

He must be familiar with signals, and see that they are understood and properly used by the persons employed under him.

When repairing bridges or other structures, he must keep the main track safe for the passage

of trains, and, when necessary to obstruct it, see that full protection is provided in both directions.

He will arrange with the Supervisor for the distribution of material and for other assistance he may require.

SIGNAL SUPERVISORS.

825. The Signal Supervisor reports to the Division Engineer.

He is responsible for the proper working of all interlocking apparatus and fixed signals.

He must make all repairs, but must not make any alterations without proper authority, nor permit any changes in interlocking apparatus or signals maintained by foreign companies without proper authority.

When, from any cause, an interlocking machine will be out of service for more than twenty-four hours he must see that the semaphore arms are taken off and that no lights are displayed on the signals. He must see that all towers are provided with proper hand signals.

SUPERVISORS.

826. The Supervisor reports to the Division Engineer.

He has charge of the track forces employed on his sub-division, and must see that they perform their duties properly; discipline them for neglect of duty, and keep account of and report their time in the manner prescribed. He is responsible for keeping the track, fences, road-bed, bridges, culverts, telegraph line and everything pertaining to the roadway in repair.

He must frequently pass over his sub-division, observe the condition of the track and bridges, see that the proper slope and ditches, are preserved, and that culverts and drains are kept open, note anything liable to obstruct the track, and have it removed, and do everything necessary to secure the safety of the road.

He must know that persons under his charge understand and obey the rules and understand the use and meaning of signals; see that materials are safely kept and economically used; attend in person to the removal of slides, snow or other obstructions; in case of accident take the necessary force to the place, and use every effort to clear the road: have the standard time, and compare with each Foreman once a week or oftener; give attention to the water supply and report any defect or deficiency; keep an oversight of work performed by contractors or mechanics, and see that they do not endanger trains, and make care-

ful inquiry and report fully in writing respecting any accident on his sub-division.

He must be familiar with the instructions issued for the government of trains and trainmen, and report any neglect of duty or violation of the rules that comes under his notice.

TRACK FOREMEN.

827. The Track Foreman reports to the Supervisor.

He has charge of the repairs on his section, and is responsible for the safety of the track, bridges and culverts.

He must see that the track is in good line and surface, and properly spiked; that it is in true gauge; that the cross ties are properly spaced, lined and tamped; that the road-bed is in good order; that the proper slopes and ditches are preserved, and that there is no interference with the drainage.

He must engage in work personally, and see that watchmen and other workmen faithfully perform their duties; suspend them for neglect or misconduct, and report the same to the Supervisor.

He must compare time each day with the clock at the nearest telegraph office, or with the Conductor of a train, and must carefully observe signals displayed by trains.

He must watch points where obstructions are likely to occur; examine the slopes of cuts, and remove anything liable to fall or slide; remove combustible material from the vicinity of the track, bridges and buildings; extinguish fires that may occur along the road; watch the telegraph line and keep the poles and wires in proper position; report promptly any derangement of the wires and assist the Linemen when necessary; see that water stations are kept in order and report any failure in the water supply; see that fences are kept in repair; prevent encroachment on the right of way and other grounds of the Company; render prompt assistance in case of accident, or delay to trains, and see that old material is gathered up, and that his section is kept in neat and proper condition.

He must not permit anything to be placed where it will endanger trains or employes, and during heavy storms he must detail all hands to watch the road and take every precaution to prevent accident.

Any work that interferes with the safe passage of trains at full speed is an obstruction and must

not be attempted without full protection in both directions. If merely a reduction in speed is necessary, he must have Caution (green) signals placed just beyond the obstruction on the Locomotive Engineer's side of the track. Where it is necessary for trains to come to a stop before reaching the obstruction, or where the Caution-signals cannot be seen from the obstruction, he must send out Flagmen with Stop (red) signals a proper distance to insure full protection. He must report all failures of Locomotive Engineers to properly acknowledge these signals.

He must not permit his switch key to pass out of his possession, and must personally attend to the opening and closing of switches.

He must not run his hand car without at least one man facing in each direction, nor without full protection by signals when necessary. He must see that push cars, when used, are never so loaded as to prevent prompt removal on approach of a train, and that they are at all times properly protected by signals.

He must not permit hand or push cars to be attached to moving trains or to be run at night without a light, or at any time on other than Company's business, or without his authority, or on other than sidings or outside main tracks in the direction of traffic where practicable.

He must see that they are so secured when not in use that they cannot be moved to endanger trains.

TRACK AND BRIDGE WATCHMEN.

828. Track and Bridge Watchmen report to and receive their instructions from the Track Foreman.

The Track Watchman must carefully examine the track and see that it is in safe condition; that the switches are set and locked for the main track; that cars left on sidings fully clear the main track, and that the doors of loaded cars are secured. He must examine buildings and other property of the Company and protect them from fire and other damage.

Should an obstruction to the track occur, the Watchman must at once display Stop-signals, in both directions and immediately send word, if possible, to the Track Foreman. Night Watchmen, before going off duty, must notify the Track Foreman of the trains due which have not passed, and of any other matters requiring attention.

The Bridge Watchman must keep a supply of water on the bridge and follow each train with

a bucket of water to extinguish fire or hot cinders that may have fallen from the engine; keep the coping of the abutments and piers clean; remove combustible matter from near the bridge; frequently examine the timber and iron work of the bridge and report any decay or defect, and prevent all persons, except employes, from crossing the bridge.

The Watchman must observe the speed of passing trains and report any violation of the rules. When his time is not wholly occupied with watching he will attend to such other duties as may be assigned him.

CAPTAINS OF POLICE.

829. The Captain of Police reports to the Superintendent, and must conform to the instructions of the Superintendent of Police.

He is responsible for the proper guarding against depredation, fire or trespass of the Company's property or that entrusted to his care, and shall have supervision of the men thus employed.

He shall, at the request of the Conductor, assist in maintaining order on trains, and shall maintain order at stations and in yards, and so far as possible protect the Company's patrons from annoyance by disorderly persons.

The Lieutenant of Police will in the particular duties or district assigned him, have the same authority as the Captain, and will act for him in his absence as may be directed.

CROSSING WATCHMEN.

830. The Crossing Watchman reports to the Track Supervisor.

He must exercise care to insure full protection at the crossings when the trains are approaching.

He will use white signals at crossings to signal vehicles or pedestrians and on crossing gates. Red signals must be used only to stop trains.

He must keep his watch house clean and not permit unauthorized persons in or about the premises.

Where two or more Watchmen are employed during the day or night, there must be always one on duty. When both day and night Watchmen are employed they must not leave their posts until relieved by each other.

ADDITIONAL SAFETY RULES.

900. The Company desires every precaution taken to prevent injury to employes and pro-

hibits the doing of any work in a manner that jeopardizes their safety.

901. The greatest precaution must be used by train or yard crews handling engines or cars in Yards to warn other employes, by the use of the bell, whistle or other available means, to avoid injury.

902. There is danger of personal injury to employes, when going between or under engines or cars to make temporary repairs, adjustments, etc., by cars being coupled to or moved. Employes whose duties require them to go between or under cars must take sufficient time to personally notify locomotive engineers in such cases, and also to have the cars separated, when necessary, a sufficient distance, so that, if any mistake occurs there will be opportunity to avoid injury. If it is on a yard track notify locomotive engineers or post men at either end of the train or take such other action as circumstances may require to insure safety before going under or between engines or cars.

903. Every employe is required and warned to see for himself before using them, that the machinery and tools which he is expected to use are in proper condition for the service required, and if not, to put them in proper condition, or see that they are so put, before using them. The Company does not wish or expect its employes

to incur any risks whatever from which, by exercise of their own judgment and by personal care, they can protect themselves, but enjoins them to take time in all cases to perform their duty in safety.

904. Employes are prohibited from:

Going between moving cars to couple or uncouple same or for any other purpose.

Running ahead of moving cars to open or close angle cock or for any other purpose.

Kicking coupler with foot or adjusting with hand while cars are in motion or about to be coupled.

Jumping on or off engines or cars moving at high speed.

Riding on pilot of engine in forward motion except when absolutely necessary in the performance of duty.

Making running switches with occupied caboose cars.

Walking on track except when in the actual performance of their duties it is necessary for them to do so.

When necessary to use the right-of-way as a means of going from one point to another, the path on outside of track must be used when available.

905. To avoid injury by approaching trains employes must step clear of all running tracks.

906. In pushing cars ahead of an engine, a man must be stationed on either the leading car or the ground, so that no one can pass in front of the moving cars; this to also apply when trains have been cut for road crossing or for any other purpose.

907. Should it become necessary to make a second stop where water is taken, the train must not be moved until the proper signal is given by the engine whistle.

In no case should the train be started while passengers are getting on or off.

908. On passenger trains with vestibule coaches the vestibule doors, including trap doors, should be immediately closed after train starts, and opened only on the station side to receive or discharge passengers.

On open platform coaches the crew should see that passengers get off on the station side only.

